

MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

Vol. XIII. No. 17.
WEEKLY.

BALTIMORE, JUNE 2, 1888.

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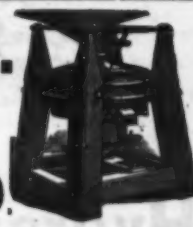
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Manufacturers and Builders of HYDRAULIC STEAM, SKEL and Hand-Power, PASSENGER and FREIGHT **ELEVATORS** With most approved Safety Devices.
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Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS. PHILADELPHIA, PA.
Branch Office, 108 Liberty Street, NEW YORK.

Report of the AQUEDUCT Commissioners.

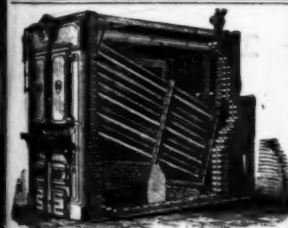
(NEW CROTON AQUEDUCT, NEW YORK.)

AN ELABORATE VOLUME, CONTAINING AUTHORITATIVE TABLES BY THE CHIEF ENG., B. S. CHURCH. JUST ISSUED.

Number of Ingersoll Drills used.....	242
Number of Drills of all other kinds used.....	103
PROGRESS (by actual figures from Table 8.)	
Days weekly progress in best 10 headings that used Ingersoll Drills exclusively (omitting all idle ft. weeks).....	38.73
Days weekly progress in best 10 headings that used other drills exclusively (omitting all idle weeks) 31.68	
DIFFERENCE OF 20 PER CENT. IN FAVOR OF INGERSOLL DRILLS.	

All headings where Ingersoll Drills were used exclusively have been completed, except the section under Harlem River, now being driven by Ingersoll Drills and Air Compressors. Send for description of Aqueduct, with Engineers' Tables of Progress and Catalogue. Sent free. We have procured a limited number of the Report of the Aqueduct Commissioners, and will send them by express on receipt of \$5, actual cost to us.

INGERSOLL ROCK DRILL CO.,
10 Park Place, New York City.



ROOT'S NEW WATER TUBE STEAM BOILER,

Safe, Economical, Durable.

Recently adopted by the BRUSH ELECTRIC LIGHT CO. at Louisville, the EDISON ELECTRIC LIGHT CO. Detroit, and the COLUMBUS EDISON ELECTRIC LIGHT CO., Columbus, Ohio.

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WILLIAM H. SMITH, Esq., 118 Dearborn St. Chicago, Ill.
CHAR. E. ASHCROFT, Esq., 69 Mason Bldg. Boston, Mass.
JOHN S. MOORE, 120 Gravier Street, New Orleans, La.
T. B. PACKER, Shoolley Building, Kansas City, Mo.
V. NEHRILL, 149 N. Third Street, Phila., Pa.
S. C. DODGE, Chattanooga, Tenn.



Thos. K. Carey & Bros.

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Mill Machinists and Railroad Supplies and Machinery.

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Carrying car-load lots of assorted sizes in their warehouse in Baltimore.
Write for price-lists and discounts.



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WROUGHT RIM PULLEY.

OVER 300,000 NOW IN USE. THE LIGHTEST, STRONGEST, BEST BALANCED and CHEAPEST in the WORLD.

Shafting, Hangers, Couplings, &c.

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BOYLE ICE MACHINE
AND REFRIGERATING APPARATUS.

The Most Simple, Reliable, Durable and Economical in Existence.

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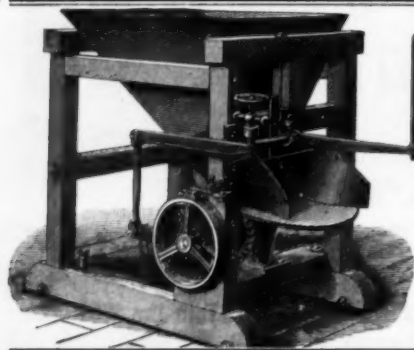
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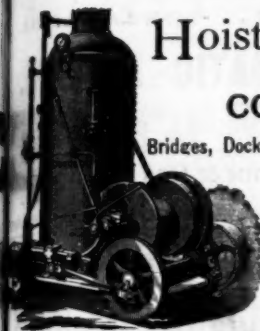
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BACKING DEVICE.
Saves 20 Per Cent.**Rubber and Leather Belting.**

THE EMPIRE LUMBER CO., Mfrs. of Long Leaf Yellow Pine.
CHATTANOOGA, TENN., Feb. 6, 1888.
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J. C. ANDERSON, President.

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HOISTING ENGINES FOR MINES, FURNACE AND FACTORY.

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300 STYLES AND SIZES.

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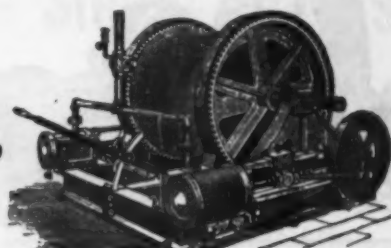
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AND

FURNACE HOISTS,

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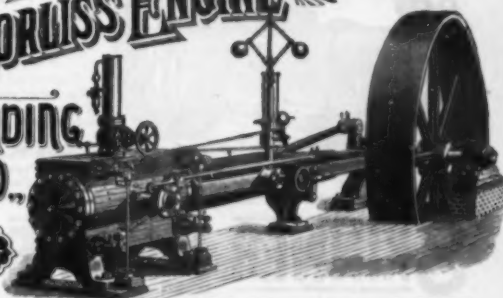
Moncrief's Scotch Gauge Glasses.

GENERAL AGENT CELEBRATED TANITE EMERY WHEELS.

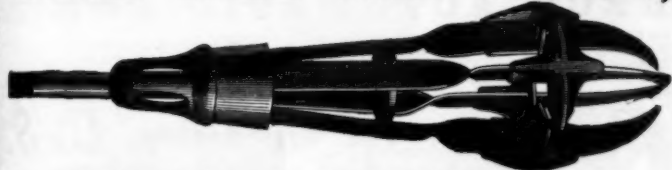


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BUILT BY THE FISHKILL LANDING MACHINE CO.,
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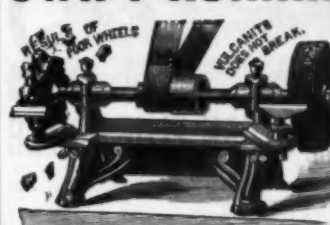
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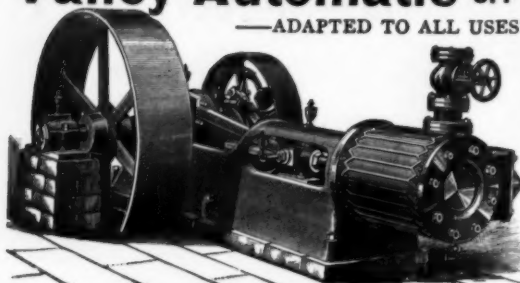
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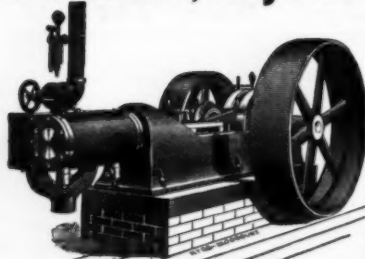
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Automatic Cut-off Engines

5 to 100 Horse Power.

Economy in Fuel Consumption, Close Regulation, Great Durability and Simplicity, Perfect Workmanship and Design.

Unrivalled in these qualities, our engines are suitable for all purposes, especially where high speed and difficult service are required, as in electric-light plants, rolling mills, etc. Send for Illustrated Catalogue.

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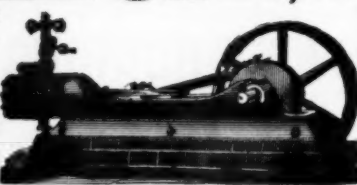
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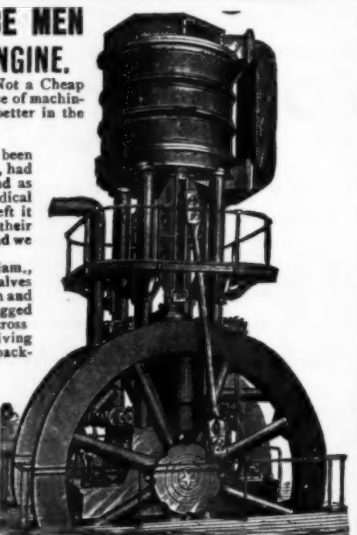
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DESCRIPTION.—This one has steam cylinder 36 in. diam., 48 in. stroke, blowing cylinder 24 in. diam. Four rolling valves on the steam cylinder, giving separate adjustment of each and minimum waste in steam passages. Cylinder neatly lagged with wood and covered with Russia iron. Cast steel cross head straddling piston rod and secured to it by taper pin, giving a flexible connection. Wind piston is packed with wood packing in sections, breaking joints and held out with springs. Iron follower removable in sections and valves so arranged as to loose the least possible amount by air cushions and to entirely dispense with counterbalances and springs thereby securing great durability even with rapid motion. Fly wheels are cast in halves, securely bolted together and cored out to thoroughly counterbalance engine.

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FOR SETTING STEAM BOILERS.

Economy of Fuel, with increased capacity of Steam Power. Like the **Siemens Process of Making Steel**, it utilizes the waste gases with hot air on top of the fire. Will burn all kinds of waste fuel without a blast, including Black Coal, Sawdust, Logwood Chips, &c. Send for Circulars.

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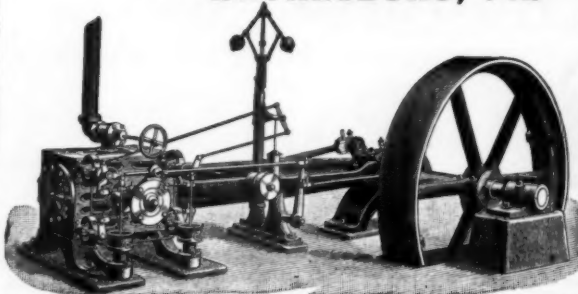
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Condensing, Non-Condensing & Compound.

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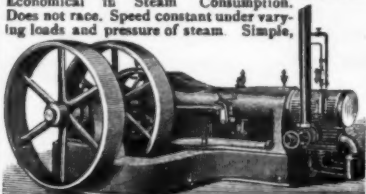
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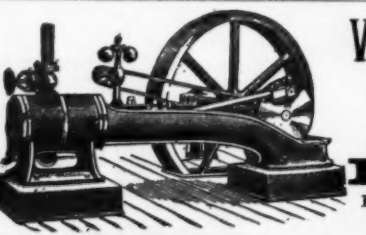
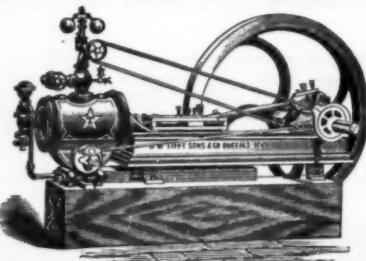
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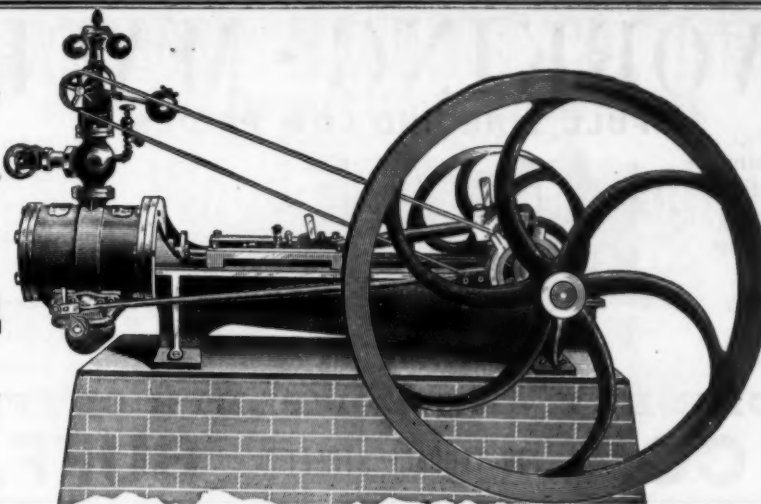
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ESTABLISHED 1864.

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ALL SIZES,

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Orders filled at short notice.

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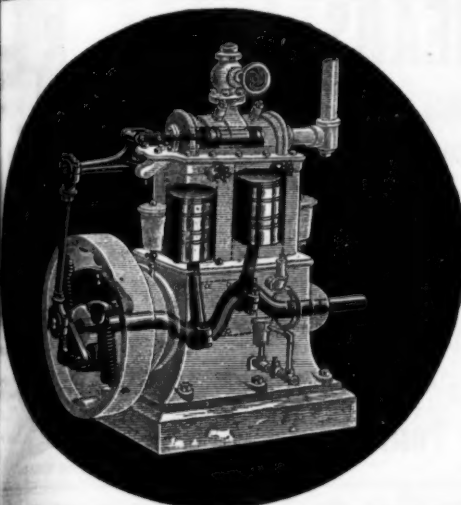
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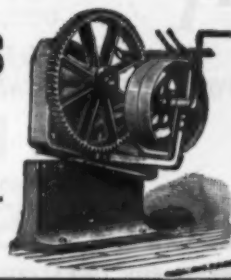
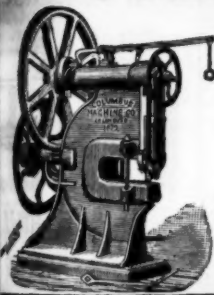
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Blast Furnace, Stationary, Portable AND Hoist Steam EnginesBoilers, of all descriptions; Rolling Mills; Drop Presses; Shears for Rail, Bar and Plate
Rolling Mills; Punches and Shears—Single or Combined; Boiler and Sheet Iron
Rolls—Hand or Power; Boiler Makers' Shears and Punches; Shafting
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Blowing Engines, and Blast Furnace Work in all its branches, a specialty.

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For Virginia and West Virginia.

Boilers, Engines and Saw Mills,

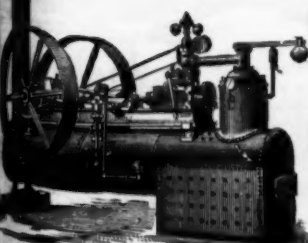
OTTO SILENT GAS ENGINES,

Hotchkiss Mechanical Boiler Cleaner, Corliss

Engines, Hydraulic Presses and Pumps,

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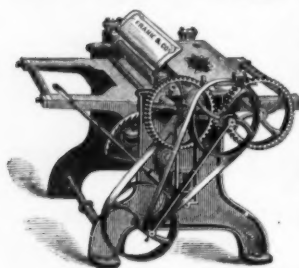
BELTING.

**McLAUGHLIN'S IMPROVED ADJUSTABLE STEAM FLUE CLEANER.**
IT NEVER FAILS.

Pat. Dec. 14, 1886.

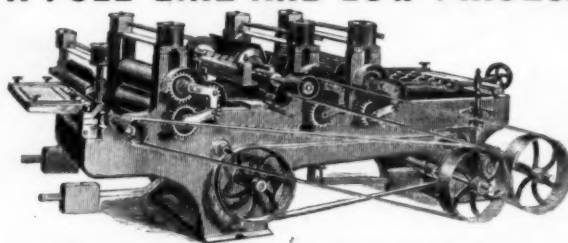
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ED. S. McLAUGHLIN MANUFACTURING CO.
139 Oliver Street, Boston, Mass.**Shafting, Hangers.**Carefully of every
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Stationary, Distillery
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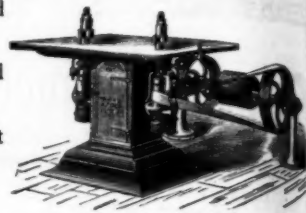


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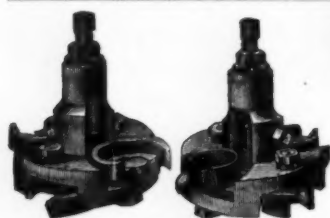
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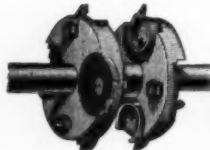
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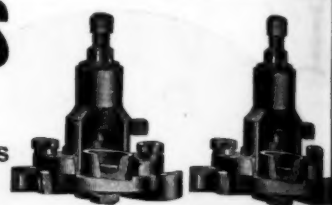


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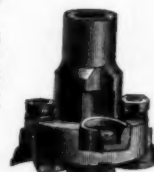
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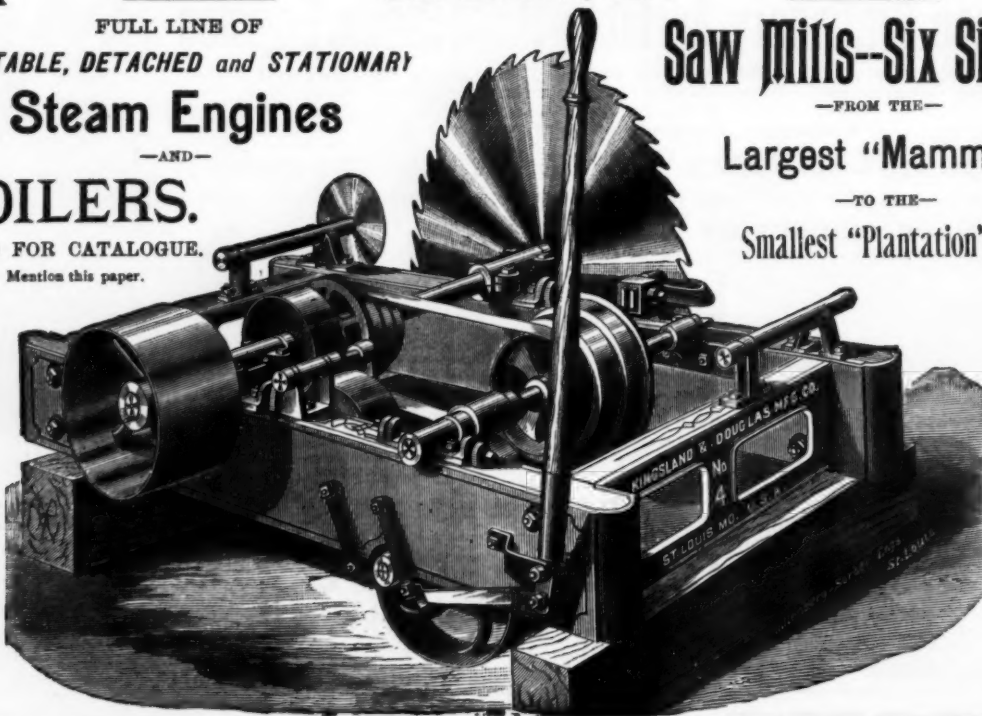
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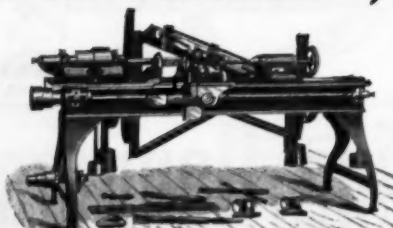
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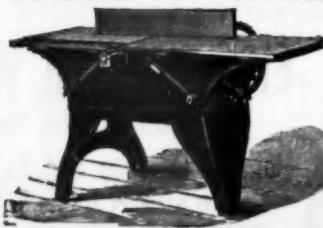
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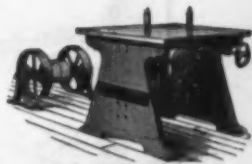
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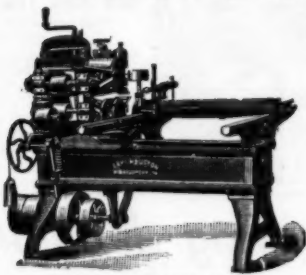
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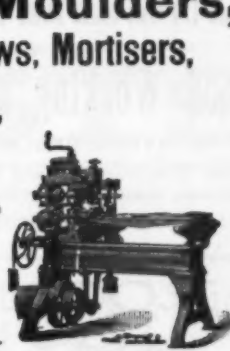
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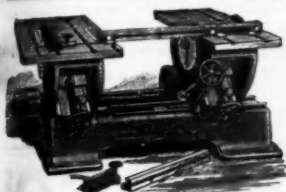
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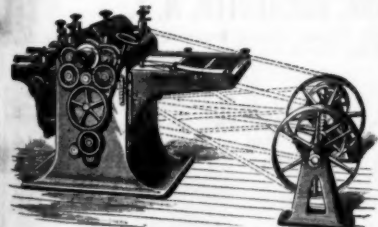
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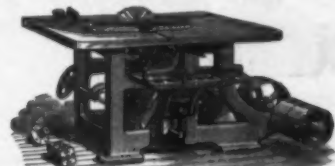
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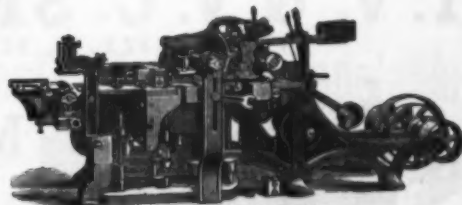
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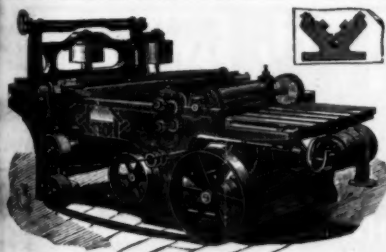
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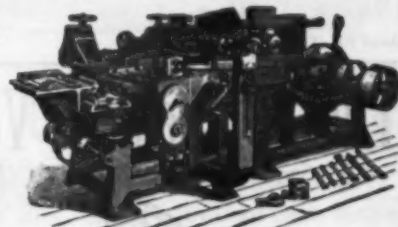
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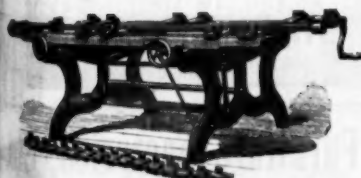
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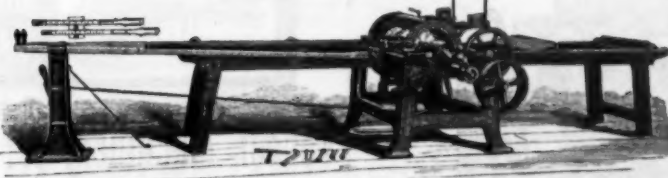
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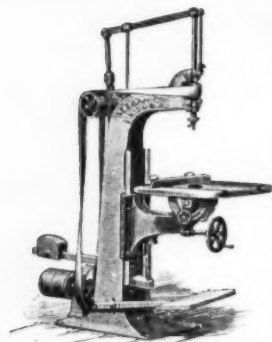
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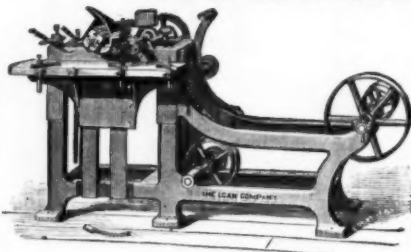
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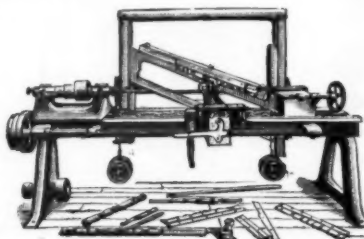
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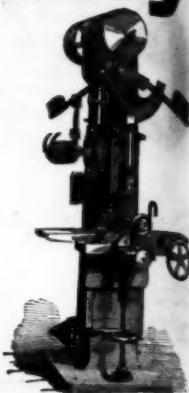
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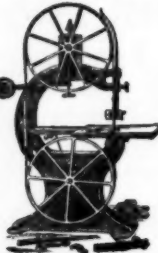
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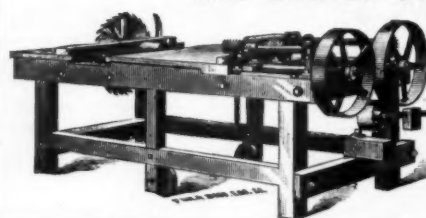
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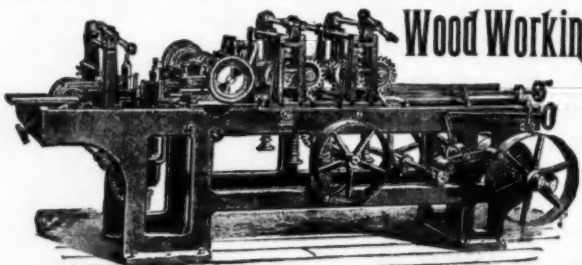
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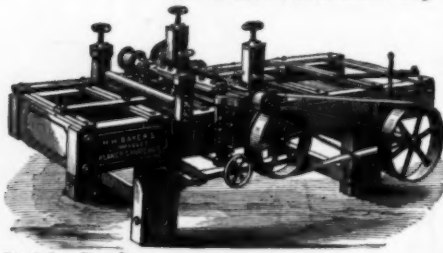
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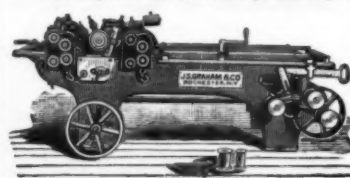
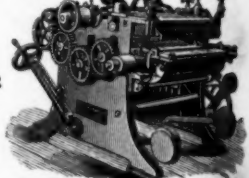
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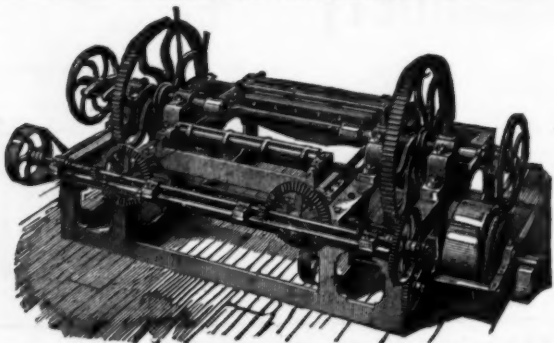
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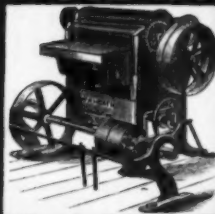
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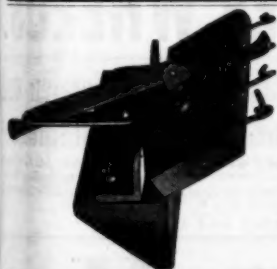
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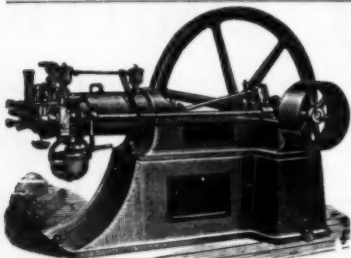
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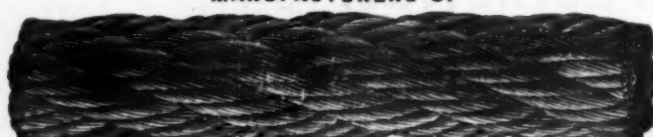
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Manufacturers' Record.PUBLISHED EVERY SATURDAY BY THE
MANUFACTURERS' RECORD CO.

R. H. EDMONDS, EDITOR.

—OFFICE—

COR. EXCHANGE PLACE AND COMMERCE STREET
BALTIMORE.

SUBSCRIPTION \$4.00 A YEAR.

BALTIMORE, JUNE 2, 1888.

**Garcin, Moseley & Böhmer, Sales
Agents Southern Rubber Co.**
RICHMOND, VA., April 26, 1888.

Editor Manufacturers' Record:

We desire to write you our opinion as to how we regard the MANUFACTURERS' RECORD as a reliable source of information and as an advertiser. We are pleased to say we have found it to be by far the most reliable paper of the kind published, and, as we have subscribed to all kindred papers, we think we are in a position to judge. We have discontinued all subscriptions to papers purporting to be of the same class, as we find all the information regarding the erection of new enterprises in the MANUFACTURERS' RECORD about one week ahead of any of the other journals. Through your Construction Department we have secured some of the largest orders placed in the South for rubber and leather belting, among them that of the Empire Lumber Co., at Empire, Ga., to whom we furnished some \$3,000 worth of belting; the Orange Park Lumber Co., at Orange Park, Fla.; the Breunham Oil Works, Brenham, Texas, and many others too numerous to mention. We cheerfully give you an advertisement, and feel assured that the money is well spent. We will say we do not believe in newspaper advertising, and your paper is the only one in which we would care to have an advertisement of any kind. We have been subscribers to the MANUFACTURERS' RECORD for three or four years, and intend to keep up our subscription as long as the paper is published. Very truly,
GARCIN, MOSELEY & BÖHMER.

**Fletcher & Thomas, Manufacturers of
All Kinds of Brick-makers'
Supplies.**

INDIANAPOLIS, IND., April 6, 1888.

Editor Manufacturers' Record:

We are happy to say that the direct results from our advertisement in the MANUFACTURERS' RECORD have been very satisfactory. Our trade throughout the South since January 1 has more than doubled that of last year, and very largely we know this has come from the fact of your paper reaching to all quarters, and directly to those who are looking for improved machinery. Hardly a day passes that we do not receive letters saying "we see by the MANUFACTURERS' RECORD that you have improved brick machinery, etc. etc." We heartily recommend your paper as a medium for reaching the people. Yours very truly,
FLETCHER & THOMAS.

**F. F. Adams Co., Manufacturers of
Patent Household Articles.**

ERIE, PA., March 10, 1888.

Editor Manufacturers' Record:

The "ad." we have in your paper we consider one of the best investments we have made this year. We are receiving numerous enquiries from first-class houses, asking for catalogues and best cash prices. This is our second year with you, and we can trace a number of our orders direct to our "ad." in the RECORD. We have tried other papers who claim to reach the trade we are seeking, and have settled on the MANUFACTURERS' RECORD as being superior to all others for Southern trade. Yours truly,
THE F. F. ADAMS CO.

**F. F. Waters Manufacturing Co., Manu-
facturers of Smith's Patent
Friction Drill.**

BOSTON, MASS., February 4, 1888.

Editor Manufacturers' Record:

It gives us pleasure to state that our "ad." in the MANUFACTURERS' RECORD has brought us, on the average, about 30 letters per month. We consider it a paying investment. Respectfully,
F. F. WATERS MFG. CO.

**Cordesman, Meyer & Co., Manu-
facturers of Wood-Working
Machinery.**

CINCINNATI, O., January 11, 1888.

Editor Manufacturers' Record:

We are highly pleased with the returns from our advertisement in your journal, and take pleasure in commending it to others in our line as a valuable medium for reaching the trade. Yours very truly,
CORDESMAN, MEYER & CO.

A High Compliment.

The MANUFACTURERS' RECORD acknowledges with great pleasure the receipt of the following very complimentary letter signed by the mayor and the leading business men and trade associations of Louisville No more flattering endorsement of the work of this paper in behalf of the South could be asked:

LOUISVILLE, KY., May 7, 1888.

R. H. EDMONDS, ESQ.,

*Editor Manufacturers' Record,
Baltimore, Md.:*

Acknowledging the eminent services of the MANUFACTURERS' RECORD throughout the South and Southwest in making known the wonderful advantages and resources of this section of the country, together with the able, upright and earnest manner in which this well-known, recognized industrial journal of the country has pursued its walk in the upbuilding of the great South and Southwest, and also acknowledging its influence and power in the continued furtherance of its mission in this special field of labor—in promulgating to the four quarters of the globe the material wealth and advancement of the South—we, the undersigned, representing the manufacturing and business interests of the city of Louisville, earnestly request that Mr. Hinton Helper, the general Southern correspondent and agent of said paper (a gentlemen well known to our people and throughout the South at large as a zealous, able and consistent correspondent), be permitted to establish a branch office in this city of the MANUFACTURERS' RECORD, feeling confident that such a move would redound to the interest and welfare of the South in general, the paper in question and to our people at large. All of which is respectfully submitted:

CHARLES P. JACOB, Mayor.

GEO. A. ROBINSON,

President Commercial Club.

ANGUS R. ALLMOND,

Secretary Commercial Club.

FULTON, CONWAY & CO.,

Dealers in Iron and Carriage Hardware.

TODD-DONLIAN IRON CO.,

Merchant Iron, &c.

HARRISON & GATHRIGHT,

Manufacturers Saddlery and Harness.

R. A. ROBINSON & CO.,

Wholesale Druggists.

FALLS CITY JEANS & WOOLEN CO.,

By R. L. WHITNEY, Sec'y and Treas.

R. G. DUN & CO.

WATERS & GARLAND, Mill Supplies.

W. & A. C. SEMPLE,

Railway Supplies and Metals.

HARRY WEISSINGER,

President Board of Trade.

W. B. BELKNAP & CO.,

Iron and Hardware.

H. W. BARRET & CO.,

Proprietors Eclipse Woolen Mills.

HALL BROTHERS & CO.,

Pig Iron Merchants.

PETER R. STORY,

Vice-President Ohio Falls Iron Works.

JNO. J. BARRET,

Chairman Commercial Club Committee

on Manufacturing and Mercantile Interests.

JNO. H. SUTCLIFFE,

President Gaynor Electric Co.

YOUNG E. ALLISON,

Sec'y Industrial and Commercial Committee.

W. C. PRIEST,

Chairman Industrial and Commercial

Committee Board of Trade.

KENT & MORDUE,

Pig Iron, Coal and Coke.

J. H. LINDENBERGER,

President Merchants National Bank.

LOUISVILLE CITY NATIONAL BANK.

By JAMES A. LEECH, Cashier.

Subscribe to the MANUFACTURERS' RECORD.
Price \$4.00 a year or six months for \$2.00

**The Possibilities of Southern
Growth.**

It is needless to refer to the reasons why the South did not develop its manufacturing interests prior to the war, and after the war the poverty entailed by that disastrous struggle and the political troubles prevented any active steps towards the development of the vast mineral wealth of this section until about 1879 or 1880. Since that time the progress of the South has been without a parallel in the industrial history of the world. Gigantic manufacturing enterprises have come into existence; thousands of miles of railroads have been built; millions of dollars, very largely of home capital, have gone into furnaces, rolling mills, car works, machine shops and foundries, and factories of all kinds, both small and great; villages have grown into thriving towns, and towns into great and prosperous industrial centers, which are rapidly helping to build up the wealth of this section; the assessed value of property is rapidly increasing; the eyes of the world are turned this way, and men and money are so rapidly pouring into the South as to assure a rapidity of growth that will astonish those who have not carefully studied the matter, and who thus fail to appreciate the foundation which has already been laid for the greatest industrial growth the world has ever seen. This foundation has been laid by nature itself in the marvelous blessings of soil, climate, and mineral and timber wealth, which have been given with such a lavish hand, and on this the people of the South have commenced to build their grand structure.

Probably in no way can the vast possibilities of the South and the wonderful future which is opening before it be better illustrated and demonstrated than by a comparison of Alabama, which is the typical State of the New South, and Pennsylvania the typical State of the wealthy North. They are the representative States of the two sections and their industrial growth is based on their mineral and timber resources. It has been said that the production and consumption of coal and iron are the measure of a nation's civilization and prosperity; and it is this basis on which Pennsylvania has built its tremendous wealth. We have heard so much of the great development of Alabama, of new towns and new industries that many imagine that this marvelous growth must soon come to an end. They can scarcely believe that for generations to come Alabama—and Alabama is here used as a type of the South—can continue her wonderful progress, and still the limit of her sound and safe development not be reached. Once let capital be thoroughly convinced of the absolute certainty of this steady growth, and of the inevitable increase in values of property, there will be no lack of money seeking investment in this

unequaled section. Contrasting Alabama and Pennsylvania it will be found that in size Alabama exceeds Pennsylvania by 6,000 square miles. Of iron ore the wealth of Alabama is absolutely inexhaustible and very far surpasses that of Pennsylvania. The coal area of Alabama is 11,000 square miles, or more than the entire coal area of Great Britain itself, the greatest coal-producing country in the world at present. It is, in fact, 2,000 square miles greater than the area of the entire State of Maryland. Instead of being widely separated, the coal and ore are here found almost side by side, mined at the lowest possible cost and brought together at the furnace door at a merely nominal cost for transportation, instead of having to pay freight for hundreds of miles of carriage, as in other sections. This is why Alabama furnaces can make pig iron, and pay \$3 or \$4 a ton freight to the North and still undersell Pennsylvania furnaces right in Philadelphia itself, and at the same time pay good profits. That Alabama is destined to be the center of the iron interests of America admits of no question. This is the universal testimony of experts, and among them stands Hon. Abram S. Hewitt the great iron manufacturer of New York, who has predicted that "Alabama will be the greatest center of coke-made iron on the globe." Admitted that Alabama can and will surpass Pennsylvania in the production of coal and iron, let us see what the great possibilities of this State are.

In iron and coal resources, the basis of Pennsylvania's wealth, Alabama surpasses that State; in area it exceeds Pennsylvania by 6,000 square miles; in the amount of timber it is eight or ten times better off than Pennsylvania; in agricultural possibilities it is ahead of Pennsylvania, for while it can produce everything which Pennsylvania produces, it adds to all this a cotton crop worth \$35,000,000 to \$40,000,000 a year; its climate is vastly better than Pennsylvania's; its rivers and its sea coast greater. Thus, in all the essentials necessary for building up a great and prosperous State, Alabama is infinitely ahead of Pennsylvania. With this as a basis, Alabama's brilliant future is assured. That some idea may be had of the immense growth which this State must yet make before it reaches Pennsylvania's vast wealth and development, and thus show how the rapid growth now in progress may safely and certainly continue for years to come, contrast the statistics of these two States. In 1880 Pennsylvania had 31,200 manufacturing enterprises, and Alabama 2,070; Pennsylvania had \$474,500,000 invested in manufactures, and Alabama \$9,600,000; Pennsylvania's industries turned out \$744,800,000 of products, and Alabama's \$13,500,000; the assessed value of property in Pennsylvania was \$1,680,000,000, or an average of \$420 for every man, woman or child

in the State, while Alabama's property was worth \$122,800,000, or an average of \$100 for every inhabitant. These figures show the almost unlimited growth which Alabama can make before it reaches unto Pennsylvania's wealth, and yet there is no sound reason whatever why Alabama, with its vastly greater advantages, should not attain unto Pennsylvania's great population and prosperity. A dozen Birminghams or Annistons can grow up in Alabama to be large cities without reaching the limit of healthy growth. Alabama—and what is true of Alabama in this respect is true of the whole South—has scarcely got well under way yet.

MR. R. W. RAYMOND, a distinguished mining engineer, who attended the Birmingham meeting of the American Institute of Mining Engineers, in a letter to the New York Engineering & Mining Journal, of which he is editor, says:

Those who had not previously visited the district were impressed with its remarkable advantages for the production of cheap iron. The ore, coking coal and excellent limestone are in contiguity, and it is figured that the total cost of material at furnace in the Birmingham district will average about \$1.12½ per ton of iron produced, as against \$4 and \$5 in the Lehigh and Schuylkill valleys. The future utilization of phosphatic slag and the outlook for the basic process were also studied. Prof. W. P. Phillips stated at the meeting that the South is now paying about \$10,000,000 annually for phosphoric acid in one form or another for fertilizers, and pointed out the immense field possibly to be opened for the by-product from the phosphatic ores of the region. Perhaps, however, the feature which most impressed the visitors was the wonderful development and rapid growth of the district.

THE Florence Land, Mining & Manufacturing Co., of Florence, Ala., have issued an attractive map of Florence, one of the most beautiful towns in the South. Under the recent deal, by which outside capitalists bind themselves to invest \$1,000,000 in new manufacturing enterprises within two years, Florence will doubtless take a fresh start and move forward rapidly. It has many advantages that ought to insure a steady and substantial growth. Florence, Decatur and Sheffield, all located close together on the Tennessee river, should and doubtless will in many respects work in unison in seeking to attract attention to their great advantages. They all have the advantage of being surrounded by a rich agricultural country, water transportation and almost unlimited mineral and timber wealth in close proximity. Working in harmony they can build up that entire section of country while building up their own industries. There is room enough for all three, and there is a bright future before them.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the **MANUFACTURERS' RECORD**

Protection for 'Truck Farmers.

The fruit and truck trade of the South has reached great proportions. Seemingly there is no limit to its expansion. There is not a month of the year when many car-loads of some varieties of the one or the other are not shipped to Northern markets, while the home demand has much increased since 1880. To get something like an adequate idea of the value and volume of this business the **MANUFACTURERS' RECORD** has made a careful investigation. The result is surprising. While it was not possible to obtain all the data of this traffic, there was revealed an aggregate business of almost fabulous proportions.

It is a peculiarity of the truck and fruit trade that it has neither beginning nor end. Before the products of Northern farms and orchards have been absorbed by the markets of the country, shipments from Bermuda, Florida and various points on the Mexican Gulf begin. The round of the traffic overlaps the seasons both North and South. The mid-winter tomatoes of Florida are sold in the market stalls of New York and Chicago side by side with the celery of Kalamazoo and the potatoes of Vermont and Prince Edward's Island. Florida oranges, West India bananas, California pears and grapes are displayed by fruiterers in company with richly tinted Baldwins, greenings and russets from the orchards of New England, New York and the States bordering the great lakes. As spring draws near the more perishable fruits and vegetables put in their appearance in their regular order. As the season advances northward these shipments increase in bulk and variety. New Orleans, intermediate places, and Florida via Savannah, send at first by the express companies, but later by limited freight trains which railroad companies provide for them. The sequence of shipments from the market gardens of the Gulf States, beginning early in February and continuing until June, is substantially in the following order: Green peas, snap or string beans, asparagus, early cabbages, Irish potatoes, cucumbers, summer squashes, egg plant, okra. While this is in progress strawberries are forwarded in refrigerator cars; then in their turn cherries, peaches, early apples and pears, and grapes and melons follow. As the season advances Charleston, Wilmington, New Berne and all the country bordering the Atlantic coast line, the Albemarle counties of North Carolina, Norfolk and the farms of the Eastern Shore, have their innings. The farther north from Florida the greater the quantity and variety of products shipped. From Atlanta westward the bulk of these early products of market gardens and orchards goes to the Ohio valley and to the Northwestern States. The number of car-loads of these perishable goods sent

North from all Southern points between February 1 and August 1 exceeds 300,000, according to estimates obtained from many reliable sources, while the net market value of these products will average at least \$100 per car (taking the highest and the lowest prices as a base of computation), making the return to the South for its truck and fruit business fully \$30,000,000. Estimating the cost of transportation at the low price of \$15 per car-load, there is earned by the express, railroad and steamship companies that do this business a total of \$4,500,000 annually. To show that these figures are not too high, it may be mentioned that from one farm alone in Eastern Virginia 38,000 barrels of kale have already been shipped this season, while from the same farm 35,000 barrels of Irish potatoes will be shipped, besides other vegetables. Charleston, S. C., is now shipping on an average 100 car-loads of vegetables a day.

To ascertain how all this vast volume of perishable stuff was distributed, and to what classes of customers, special inquiries were made by the **MANUFACTURERS' RECORD** in a number of cities among many commission dealers, wholesale market men and fruiterers. The general testimony was alike. The earliest fruits and vegetables are bought only by the wealthy, because the prices are too high for others, but as the season advances, and with it the quantities of products, prices fall, and then all but the very poor indulge freely in these things, for which spring weather creates a craving. "You will see," said a very intelligent green grocer on Sixth avenue, New York, "that only the very fashionable stores keep strawberries when they are selling at a dollar a basket, but when they get down to 40 cents a quart we have to handle them, and after that the nearer they get to 25 cents the greater is the demand. It's just so with everything else shipped from the South. I should say, from many years' experience in the trade, that at least eighty per cent. of everything from North Carolina radishes and Norfolk kale to Southern grapes and peaches, is bought by the families of clerks, mechanics and the better paid laborers."

A huckster living in a Connecticut manufacturing town, who was buying a supply for the next day from commission houses on Greenwich street and Park Place, said: "In my city there are at least 9,000 families of well-to-do mechanics, the latter earning from \$2.50 to \$5 per day. These buy all their supplies from the local grocers, who keep meats, vegetables and fruits as well. We supply that class of trade. My partner goes the rounds every morning, delivers what they ordered the day before and takes their orders for the morrow. He keeps me busy here buying and shipping all the week. It's a clear cash trade for us." When asked what the trade in his

line would amount to in his city of 85,000 inhabitants if manufacturing were to cease, he replied: "It's impossible to say. Not only the families dependent upon the wages earned in the factories, but many more would be greatly straitened, and be compelled to reduce the cost of living by buying nothing they could get along without. I had a chance to see the effects upon my trade during the general depression between inflation and a return to specie payments, and it was a disagreeable experience I never wish to have repeated." "Suppose the Mills bill were to become a law," asked the inquirer, "what effect would it have upon your trade?" "Oh, there's no danger of that," said the huckster. "If I thought it possible, we would sell out now while everything is prosperous, for when protection goes every principal industry in my part of the country would have to stop, or else cut down wages to an extent that would kill my trade."

Our Southern truck farmers and fruit growers who rely upon Northern markets have never been accustomed to think of the protective tariff as in any way affecting their interests. In a general way they have looked upon the North as a populous section abounding in wealth, where they were sure to find a ready sale at remunerative prices if they could only get their goods seasonably to market. But when they realize that a very large proportion of the customers for their produce are the families of men who are earning high wages in manufacturing or mechanical employment, and that were their wages to be reduced to the European standard they would be unable to purchase any but the most necessary articles of food, they will then understand that protection is as vital to them as it is to their Northern customers. Now, what is protection? Congressman Reed, of Maine, in his speech against the Mills bill, said: "It is founded upon the doctrine that a great nation like ours, having all varieties of climate and soil, will be richer, more independent and more thrifty, and that its people will be better fitted to enjoy the comforts and luxuries of peace, and better situated to endure the calamities of war, if its own people supply its own wants." The whole purpose of protection is set forth in that sentence. The dependence of truck farming upon the prosperity of the manufacturing interests is but one illustration of this universal truth.

THE *Baltimorean* has entered upon its seventeenth year. We congratulate its publishers upon the success which has attended their labors, and trust that the future may bring them still greater prosperity. They are especially to be congratulated upon the high character which their journal has ever maintained, and its freedom from all that is sensational or undesirable in a clean family paper. This feature alone should bring it honor and riches.

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A Sample of the Men Who Are Developing the South.

The MANUFACTURERS' RECORD aims to present every feature of Southern progress, and to show how Southern men and Southern money are building up their country. The energy displayed by the people of this section from 1861 to 1865 is fully equaled by the energy with which they are redeeming the South from the poverty entailed by the war, and putting its prosperity on a sounder basis than ever before. The giant strides that are being made in industrial development are largely due to the tireless energy and the indomitable will of the young men of the South. These facts are admirably illustrated in the lives of those who are leading in the South's progress, and the MANUFACTURERS' RECORD can do no greater work than occasionally to step aside from the line of statistics to tell what some of these leaders are doing, that others may be stimulated to renewed efforts.

The life of Mr. D. A. Tompkins, the noted engineer of Charlotte, N. C., strikingly enforces the point that we are constantly seeking to make—that in energy and enterprise the men of the South are not a whit behind the most progressive Westerners or New Englanders. Mr. Tompkins is but 35 years old, and yet he is widely known as one of the foremost workers in Southern development.

He was born in Edgefield county, South Carolina, on the 12th day of October, 1852, his father being Dr. D. C. Tompkins, who owns the old plantation and lives there, as did his father also. Young Tompkins attended the usual country neighborhood schools. At 15 years of age he entered the South Carolina College, remaining two years. Here he was under the tuition of Gen. E. P. Alexander, now president of the Georgia Central Railroad Co. Gen. Alexander noticed his taste for industrial pursuits and advised him to go to the Rensselaer Polytechnic Institute, at Troy, New York, where he graduated after three years' study.

During the entire time of his stay in the Troy school South Carolina was suffering from carpet-bag and negro misrule, and it was no more than possible for a planter to live and pay taxes. In order to finish his course, and yet not burden his father with the weight of all the expense, and in order also to gain practical knowledge, which he considered as important as technical, he worked during all the interims of his collegiate course as a laborer in the Bessemer Steel Works of John A. Griswold, at Troy, and in the latter part of his course made many drawings and tracings for the steel works.

In the steel works his drawings attracted the attention of A. L. Holley, consulting engineer and constructor of some of the largest steel works built in this country. When he graduated Mr. Holley offered him a

place in his office in New York. While he was in New York the Edgar Thomson Steel Works were being constructed by Mr. Holley, and Tompkins made many of the drawings for these works.

A position in which drafting and office work were the main features was not satisfactory to him, and through Mr. Holley's influence he was given a job in the machine shop of the Bethlehem Iron Co., in Pennsylvania. Here he worked in the various capacities of machinist, draftsman, designer and assistant to the master mechanic. Under the directions of Mr. John Fritz, superintendent, he made the drawings for several blast furnaces and many other structures, and for machines for use in the Bessemer steel works and rolling mill, and probably two million dollars were expended in the execution of the designs of Mr. John Fritz from drawings made under his direction by Mr. Tompkins. Many of the drawings he made while at the Bethlehem Iron Works were published in English and Continental engineering journals.

The Bethlehem Iron Co. purchased a half interest in some rolling mill patents. A German company purchased the right to use these patents in Germany and ordered the necessary machinery in the United States. The parties interested appointed Mr. Tompkins to make designs of the machinery, and when it was completed he was also selected to go to Germany and set it up and start it in successful operation. He spent about a year in Germany, and then returning to Bethlehem soon received a proposition to construct a plant at Crystal City, Mo., for the manufacture of plate glass, which was accepted and the works were constructed. In 1881 he became associated with the Westinghouse people in Pittsburgh and opened for the Westinghouse Machine Co. a branch house in Charlotte, N. C. At Charlotte he does a general engineering and machine business, with R. M. Miller, Sr., and R. M. Miller, Jr., as associates, planning many of the best manufacturing plants in the South.

Mr. Tompkins has devoted great attention to the cotton-seed oil mill business and was instrumental in the establishment and construction of several individual mills, but his crowning success so far has been the planning and the organization, with the help of some friends, of the \$5,000,000 Southern Cotton Oil Co. to fight the American Cotton Oil Trust. When the Southern Cotton Oil Co. was incorporated he was made chief engineer and assistant general manager. The cotton-oil business had fallen into the hands of a monopoly, and the new company had to build mills over the entire territory, and had to build them in one summer. Failing to cover the territory meant to be left at a disadvantage, for the competing company would have made money in the territory in which

the new company had no mills, and would have been willing to lose money adjacent to the new mills in order to have crushed them.

Messrs. Tompkins and associates, however, undertook the task of constructing eight mills of an average capacity of 200 tons per day each. The very magnitude of the undertaking seemed to inspire with extraordinary energy every person associated with the new enterprise. Complete designs for these eight mills were made in Charlotte by Mr. Tompkins, and Mr. Fred. Oliver, carrying these designs with him, organized forces at each location and commenced work. After all the designs were completed both Messrs. Oliver and Tompkins lived on the railroads and in the new works, and when the seed began to come in in the fall the new mills were put in operation contrary to the expectation of nearly everybody, for few believed it possible for one company within a few months to build and fully equip eight great mills, located in Carolina, in Alabama, in Louisiana, Texas, Arkansas and elsewhere. But the work was done, and at the appointed hour one after another started up without a hitch or a jar, so perfectly had they been planned. As a result of the organization of this company the South sold during the season of 1887-88 probably 600,000 tons of cotton seed at an average price of \$3 per ton more than was paid the season before, and in round numbers the planters received about \$2,000,000 more than could have been obtained had not Mr. Tompkins organized this new company. This was probably the largest project ever undertaken and carried out in this country in the same length of time, and yet it was the work of a young man but 34 years old, born and raised in the South.

Every enterprise with which Mr. Tompkins has been associated has been more than ordinarily successful, and, while he himself is not, in the modern sense of the word, a rich man, few men have made more dollars for other people to one for himself than he has done. He is at the present time the engineer for the D. A. Tompkins Co., of Charlotte, N. C.; chief engineer of the Southern Cotton Oil Co., and associate engineer of the Westinghouse Electric Co. and the Fuel Gas & Electric Engineering Co., of Pittsburgh, Pa.

What has been done can be done. Here is an example for the young men of the South, but those who hope for such success must work with the same tireless industry by means of which Mr. Tompkins has crowded so much into his life.

THE Piedmont Exposition managers of Atlanta did a wise thing when they decided not to hold a fair this fall. It was a generous piece of work that will pay. Augusta will now have a clear field for her great exposition.

Romance In Making Money.

The Louisville Commercial under the above heading says:

The story of the boom in Kentucky is already beginning to call out facts, which, when presented effectively, form the romance of money making. The mountains of Kentucky have felt the impulse of the awakening more generally than any other section, and the figures there are little less than marvellous. In 1886 limitless acres of waste land could have been purchased in any of these counties at from 25 cents to \$3 per acre. They were underlaid with vast stores of wealth, but nobody knew it or cared for it, and none of the advantages were understood. With the commencement of the awakening in Louisville in the spring of 1887 enterprise and activity began their work, and, in consequence, lands began rapidly to appreciate. Scores of men living on their farms have made comfortable fortunes, and scores of strangers have paid millions of dollars into the pockets of citizens of Kentucky for lands that will one day be more valuable than is dreamed of now. A year ago a company in Louisville paid \$26,000 for about 300 acres of corn-fields at Pineville, suitable for a town site. The L. & N. R. R. began building a railroad there to give the iron and coal a market, and on Wednesday and Thursday less than 10 acres of this tract were sold at public sale for \$67,000. One lot sold for as many dollars per foot as the land was worth per acre twelve months ago. During 1887 the value of assessed property in Bell county increased from \$742,964 to \$1,492,036, or more than doubled.

A FEW weeks ago it was announced that Mr. W. L. Chambers, the general manager of the Sheffield Coal, Iron & Land Co., of Sheffield, Ala., had succeeded while in the North in arranging for the construction of a number of dwellings to meet the pressing demand for houses. A dispatch from Sheffield now states that Dr. J. H. Mackintosh, of Asbury Park, N. J., has arrived at that place and will at once award the contract for the building of 50 good, substantial dwellings. This is a good move. Sheffield needs houses, and Mr. Chambers has done a wise thing in securing the aid of Northern capitalists in meeting this demand.

THE reports of charges made against Judge Bond, the general manager of the Decatur Land Improvement & Furnace Co., have been widely circulated, but we are glad to find that an investigation proves them to have been without foundation. A dispatch from Decatur says:

"After three days and nights of continual work the board of directors of the Decatur Land, Improvement & Furnace Co. to-day made a report of their investigations. The report exonerated Judge H. G. Bond in every particular. The citizens are jubilant to night over the result of the investigations and now feel more confidence in Judge Bond than ever."

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

Mississippi Notes.

Agricultural and Manufacturing Items.

[Special correspondence MANUFACTURERS' RECORD.]

ABERDEEN, MISS., May 26, 1888.

The shipments of lumber by sea from the port of Pascagoula, in Jackson county, for the week ending May 24 were as follows:

To	Feet.
Port Glasgow.....	939,197
Coen.....	333,184
Havana.....	220,226
Southampton.....	905,662
Cienfuegos.....	178,001
Boston.....	238,000
Key West.....	100,000

Total for the week..... 2,908,300

Joseph Wall, of Greenville, will shortly erect a large foundry in that city.

The Georgia Pacific Railroad will complete its Valley Division between Greenville and Winona by the first of November.

The Greenville Times says: "Contractor Barnes informs us that he has more contracts on hand than at any time in the history of the town, and that other contractors are equally crowded. In all portions of the city new houses are going up, and many of them are models of taste and beauty.

The receipts of cotton at Greenville this season up to May 18 amounted to 53,269 bales. Of the shipments all but 5,258 bales were compressed at Greenville, whereas in former seasons the compressing was done in port.

The saw mills are doing a lively business in New Venice, Jackson county, and the ship-yard is well employed.

The new schooner Flechas, a splendid vessel of its class, was launched from the Pascagoula ship-yard last week.

Up to May 25 Jackson county, on the south coast, had shipped 4,000 boxes of snap beans to Northern markets. This crop brings good returns from about the middle of April to the middle of June, yielding at least 100 bushels to the acre. The Jackson county beans have this season commanded nearly 25 per cent. better prices in Northern markets than the shipments from New Orleans and Mobile.

Durant, in Holmes county, is making heavy shipments of strawberries to the North and West.

Large shipments of corn are being made from Boonville, in Prentiss county, this season, chiefly to the pineries.

Major Mat Mahorner, one of the leading Jersey cattle breeders and dairy farmers of Noxubee county, has established an agency for the sale of his butter in Meridian.

Parties in Washington are now receiving their butter by express from the Jersey dairy farms of East Mississippi.

Capt. Wm. A. West, of Lafayette county, expects to sell a hundred tons of clover hay from his meadows this season.

The shipments of lumber from Boonville, in Prentiss county, are constantly increasing, and Messrs Sitton, Carter & Bryant are crowded with orders.

Messrs. Shannon, proprietors of the stove factory at Baldwin, on the line of Lee and Prentiss counties, are doing a brisk business, and last week were filling orders for Joliet, Illinois.

Osyka, in Pike county, is making very heavy shipments of vegetables to the Northern and Western cities. On the 19th she shipped 38,000 pounds of beans, 10,000 pounds of new potatoes, and other "truck" in proportion.

The farmers, horticulturists and grass growers in many parts of the State were blessed with much needed rains last week.

The Refuge Oil Mills, of Vicksburg, have just added to their plant four wooden tanks built by Messrs. Curphey & Mundy, of that city, of a capacity of 4,000 gallons each.

The movement in favor of the erection of a large new hotel in Vicksburg, is progressing satisfactorily.

Centreville, in Wilkinson county, made its first shipment of peaches for this season on the 23d of May. They went to Kansas City, Missouri.

Yazoo county has organized an Immigration, Land & Improvement Association, which was incorporated under the laws of the State last week, with a capital stock of \$50,000, divided into shares of \$25 each. One hundred and twenty shares were subscribed for at the first meeting and the whole amount will doubtless be speedily taken.

The town of Enterprise, in Clarke county, has a salaried immigration agent in its employ canvassing the West and Northwest, and the venture is proving highly successful.

The Yazoo City Herald, speaking of Capt. H. L. Taylor, one of the most successful planters in Yazoo county, says: "He has in cultivation this year 3,200 acres, all in fine condition. He never sells a pound of cotton seed, but puts them all back on his land as fertilizer, and says he realizes from them in this way three times as much as the highest market price. We saw on his place as fine Berkshire and Poland China hogs as any Western State can boast, including one hog weighing 600 pounds. He also believes in orchards, meadows and pastures, and from January to January his barns, cribs and smoke houses are filled with the choicest food for man and beast. He does not care to sell an acre of ground, but would rather buy, believing that the future of Yazoo county is brighter than anything the past records."

The Aberdeen Tannery, the most extensive establishment of the kind in the State, is doing a flourishing business. It's shipments of leather to Boston during the period between March 20th and May 12th, amounted to 19,218 pounds. During the same time its local sales and miscellaneous shipments were considerable. In addition to local purchase it receives large quantities of hides from Okolona, West Point, Columbus, Starkville and Meridian. The bark consumed, that of the red and chestnut oaks, is abundantly supplied from the forests of East Mississippi.

The receipts of cotton at Aberdeen for the season up to May 24th amounted to 26,415 bales, almost all of which was sold in that market, compressed there, and delivered direct from her depots by rail to "ship side."

The rains that fell in almost all portions of the State last week, were as well timed as though delivered on special orders, and all the crops and meadows were greatly benefited.

The Immigration Convention that met at the State capital last week was a grand success, and the best results are anticipated from it. Many Western farmers were in attendance.

MR. JAS. W. NAGLE, one of the founders of the Textile Record, of Philadelphia, and of late years connected with Frank Leslie's publishing house, has recently been appointed business manager of that flourishing establishment. Mr. Nagle is a warm friend of the South, and has done many good things in its behalf. He has determined to celebrate his promotion to his responsible position by issuing a copiously illustrated edition of Frank Leslie's Weekly next August, in which the great industrial development of all the mineral region on both sides of the Appalachian range since 1881 will be fully set forth. Mr. Nagle left New York last Saturday accompanied by a stenographer and an artist, and will set them at work immediately. They will be employed continuously for about three months in this enterprise.

A New Belt-holder and Shifter.

A device of peculiar construction for holding and shifting belts used with machinery is manufactured by Willis & Schenck, 93 Liberty street, New York.

While this is a complete novelty in mechanics and an entire change from old methods, it has after nearly a year's use on the heaviest belts, with the swiftest running machinery, been pronounced a success, having given more than the maximum results expected.

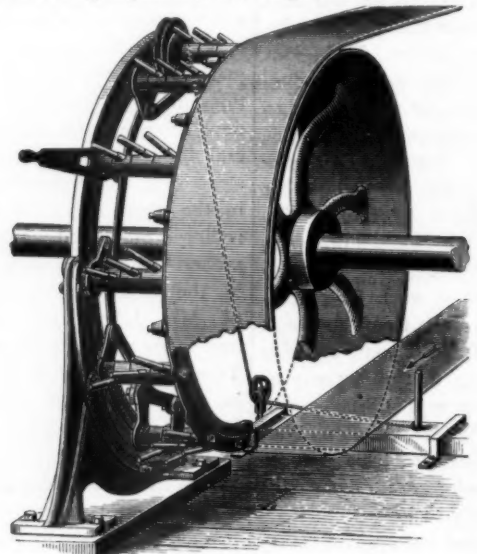
This device is constructed of metal, and in parts which are readily duplicated, the

4th. Goose pulleys are entirely dispensed with, a fact manufacturers will appreciate.

5th. Accidents to men and machinery avoided, as the power is at all times under control.

6th. A saving of time, as any line of shafting may be disconnected without stopping the entire establishment.

The manufacturers further inform us that, having fully tested it on light and heavy, swift and slow belts, they have become so satisfied with its working qualities that they will offer it on its merits and guarantee results.

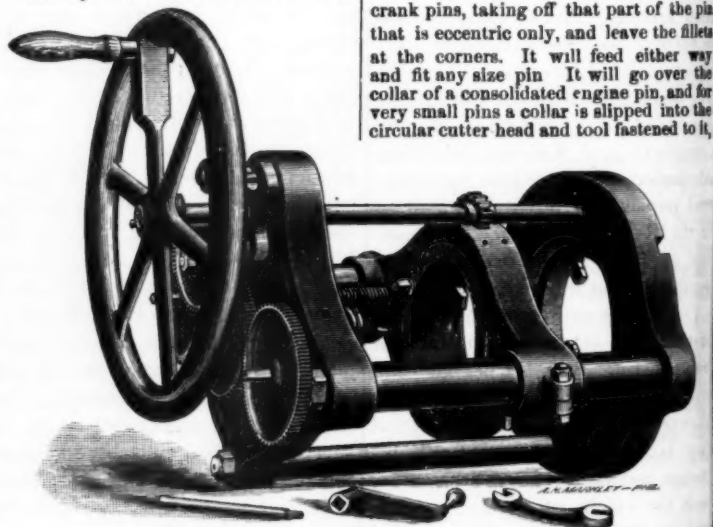


NEW BELT HOLDER AND SHIFTER.

part associating with the pulley being of the same radius, semi circular in form and occupying a position to the pulley corresponding with that position on which the belt rests. This part consists of two plates, between which rollers are placed, with minor rollers branching or projecting from the main ones at an angle of about 35 per cent. (See cut.) When the lever is raised the angle rollers are thrown back and the belt shifted to the holder, where it rests on the diminished diameter of the main rollers entirely free from all tension. But

Patent Portable Improved Crank Pin Machine.

This machine, it is said, retains all the good points of Messrs. Pedrick & Ayer's old crank pin machine, and possesses other that combine to make it a machine very valuable for its particular work. The tools are easy of access, can be seen, and are readily adjusted. The wear can be taken up. It is lighter in weight and much easier to handle, but strong and powerful. It will quickly and accurately true up crank pins, taking off that part of the pin that is eccentric only, and leave the fillets at the corners. It will feed either way and fit any size pin. It will go over the collar of a consolidated engine pin, and for very small pins a collar is slipped into the circular cutter head and tool fastened to it,



PATENT PORTABLE IMPROVED CRANK PIN MACHINE.

when the lever is thrown down the angle rollers, being raised, take effect, and the belt is in an instant deflected to the pulley.

The following claims, we understand, are fully indorsed by users:

1st. Instantaneous shifting of belt without stretching or abrasion, and retaining its tension to the pulley.

2d. Economy in power, being entirely independent of shaft, relieves it of all work or strain when on the holder, making it a dead belt.

3d. It entirely dispenses with counter shaft when proper speed can be obtained from main pulley.

so it will not project far enough to spring. The end of the machine next to the driver contains a 4 jawed scroll chuck, with the jaws that center that end of the machine. At the opposite end there is a center that slides into the center of the pin. The machine is then mounted by the original centers, and is clamped in position by bolts passing through the spokes of the driver. The annular cutter head containing the tools is driven by a small pinion, hand wheel and shaft. From this shaft, by gearing, there is an automatic feed either way. The carriage containing the cutter head is given an even, smooth travel by two feed screws. Messrs. Pedrick & Ayer, 1025 Hamilton street, Philadelphia, are the manufacturers.

New and Improved Circular Resaw.

In using thin saws for resawing, the segment saw has proved the most popular, owing to its inclination to buckle under the great friction. In other words, the segment saw will stand up and maintain its rigidity while so hot that you can hardly bear your hand on it, saws as thin as 30 gauge being used, and it is no unusual

size should be placed thereon. This will provide for the proper speed the different size saws should run. When the machine is to be used for sawing siding the belt is taken off the large pulley and the 6 inch belt is used on the small pulley. This gives the proper speed for the siding saw. The saws can be changed in five minutes. This is a great advantage, as when the machine is used constantly as a resaw two saws can be used, thereby causing no delay to file

New Double Cut-off Saw.

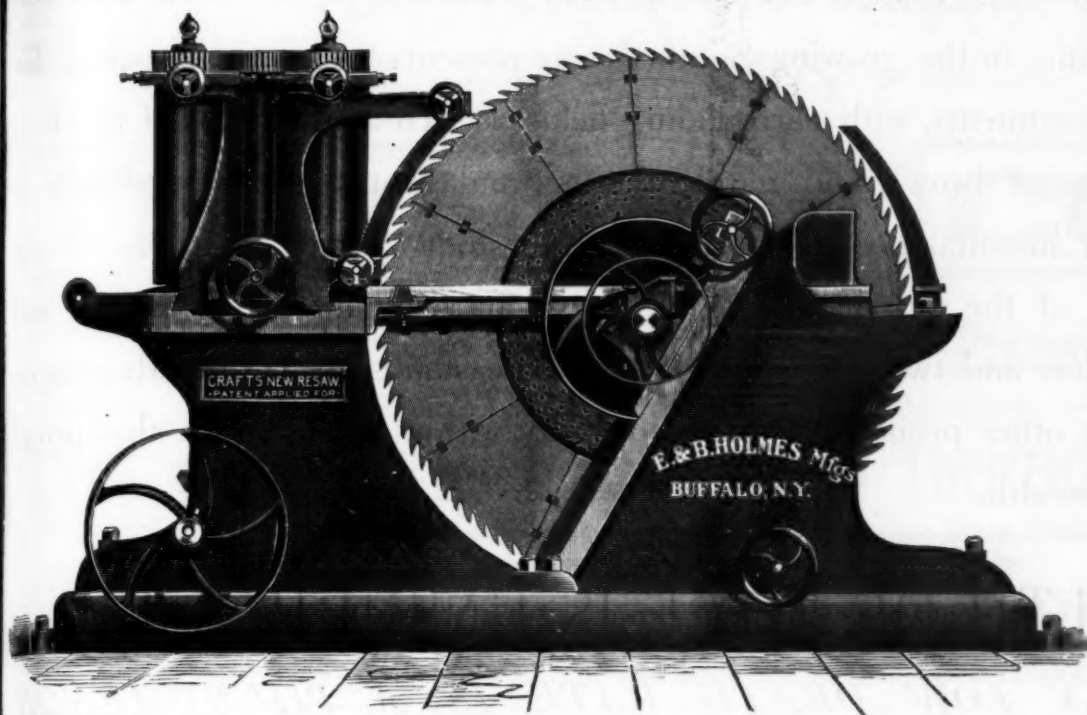
The manufacturers say the above illustrated machine is made from new patterns, having embodied in it every conceivable improvement that has been suggested by years of practical experience. It is designed to cut at both ends with accuracy in all kinds of material, and lengths varying from 4 inches up to 64 feet. It is especially adapted for use in furl

planed ways by means of hand wheel and adjusting screw shown in front of machine, enabling operator to have saws extend through the table to suit any desired thickness of material. By this arrangement the table remains at a given height at all times, thus dispensing with the inconvenience, labor, time, and all other troubles that follow where tables are adjusted to suit the thickness of the material to be cut. The distance between the saws on their own mandrel is 18 inches, but by a new method they may be spread to 30 inches; therefore, any length from 18 to 30 inches can be cut on either table.

The mandrel boxes are adjustable, and in case the saws get out of line (by accident or otherwise) they can be adjusted to give the saws the proper lead.

The swinging frame, on which the arbor frame is mounted, is provided with a belt tightener, by means of which the driving belts can be given the proper tension at all times.

The tables measure 24x48 inches and 31x48 inches respectively, and are ribbed in such a manner as to prevent springing. They are securely bolted to the housings, and the openings through which the saws extend have been made large enough to afford ample clearance for gaining, grooving and other similar cutters. When extra cutters and heads are used, the wood throat piece is removed. Grooved ways have been provided for the reception of various kinds of fences; likewise have these tables been arranged so that extensions may be instantly attached, and the operator enabled to cut very wide boards. For prices, &c., address Cordesman Machine Co., Cincinnati, O., U. S. A.



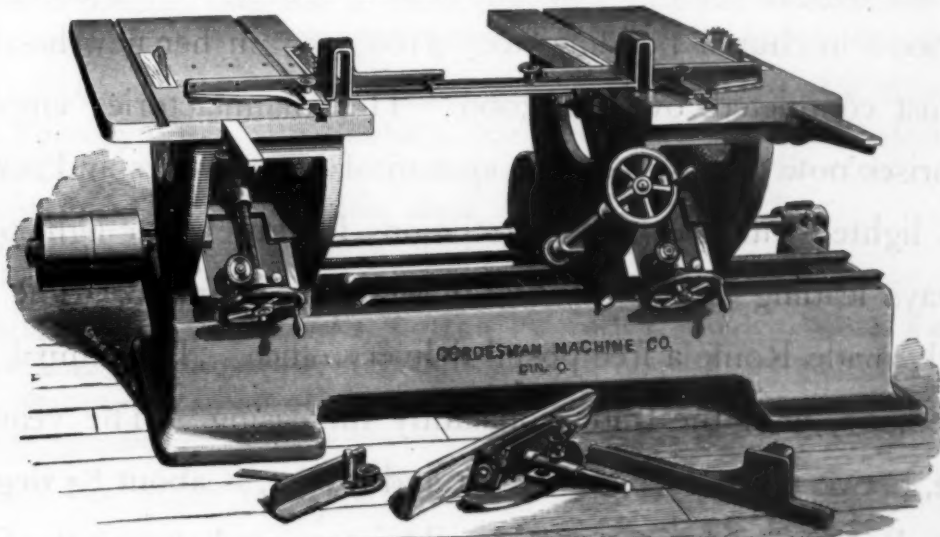
NEW AND IMPROVED CIRCULAR RESAW.

thing for these saws to resaw from 30,000 to 40,000 feet of 5 4 box lumber in 10 hours. In using segment saws it is necessary to use a very heavy collar or collars to fasten the segments to. These collars have been the objectionable features, because they split the lumber ahead of the saw and leave rough shorts on the ends. To overcome this objection the operator would place a board of requisite width between the rolls and fasten it there permanently and feed the lumber on top of the board. To correct this is accomplished by a hand wheel (shown in cut) and provides for a perpendicular adjustment of the saw of 16 inches. This permits the operator to adjust his saw to the work he is doing, and he should only present sufficient width of blade to reach through the lumber he is resawing. By using the saw this way it will cut much easier, and is not as liable to dodge, as it is cutting with the grain, instead of across it. The foundation for the machine is a heavy bed plate cast in one piece. The pedestal (that carries the shaft upon which the saw is hung) is accurately fitted to planed ways in the bed plate and securely fastened by bolts. The pedestal can be moved to and from the rolls by rack and pinion adjustment, thereby providing for the wear of the saw and for any change that may be made from large to small saws. The pedestal that carries the rolls is securely bolted to the bed plate. The machine is provided with four heavy fed rolls, eight inches in diameter, all driven by powerful gear. They also have a reverse motion, and are self centering, but can be adjusted to enable the operator to cut parallel thicknesses from one side if necessary. To allow for variation in length of belt as saw is raised and lowered, the belt is made endless, and the slack is taken up by a swing tightener. When parties wish to saw siding on the machine they place two pulleys on the saw arbor—one 20 inches diameter by 124-inch face, and one 10 inches diameter by 64-inch face. When putting up countershaft two pulleys of proportionate

and set the saw, as the operator can take the dull saw off, replace it with a sharp saw and fit the dull one up at his leisure. A gain of about 4,000 feet can be made in 10 hours by using two saws. The saw arbor is of steel, three inches in diameter, and is fitted with a patent journal box. Three sizes of these machines, 42 inch, 54 inch and 60 inch, are built by the manufacturers, who will make smaller sizes as soon as they can get out patterns. Further par-

ture, box, piano, cabinet, sash and door, carriage and wagon factories, etc.

The base with the housings are cast in large, heavy, cored-out pieces, and have ample strength and rigidity for the purpose intended. The base is very wide, securing a substantial floor support for the machine. The left housing is securely bolted to a planed surface on base, while the right housing can be very rapidly adjusted by means of revolving gears on



NEW DOUBLE CUT OFF SAW.

ticulars can be obtained from E. & B. Holmes, Buffalo, N. Y., who are the manufacturers.

HENRY MARTIN, the well-known brick machinery manufacturer of Lancaster, Pa., is erecting for W. H. Perot, of this city, a fine plant of machinery, including brick machine, pug mill and crusher, having a capacity of 30,000 brick per day. The plant will be in operation this week at one of the yards of Mr. Perot. It is a model outfit.

dovetailed planed ways. This housing is provided with an adjustable gib and set screws, so that in case of wear all loss motion can be readily taken up. It is also provided with thumb screws, so that when adjusted it can be held firmly in position.

The saw mandrels are of large diameter, made of the best refined machinery steel, and revolve in long, self-oiling bearings, lined with genuine Babbitt metal. Each mandrel carries two saws, and can be very quickly raised and lowered on dovetailed

ed, etc. This is made necessary by the increased demand for their machinery.

THE Lancaster Steam Pump & Machine Works (Esra F. Landis, proprietor), Lancaster, Pa., have issued a very complete and handsomely illustrated catalogue, which they desire to send to machinery buyers and dealers throughout the South. Send in your name and receive a copy.

Subscribe to the MANUFACTURERS' RECORD. Price \$4.00 a year, or six months for \$2.00.

ROME, GA.

OF all the growing cities in the growing South, Rome presents the greatest opening for money-making investments, with surrounding fields as rich as the lands of Goshen, with exhaustless deposits of brown and red Iron Ores and Manganese immediately at hand on all sides, with mountains of Marble and Limestone coming right up to the city, with an abundance of the best Coal easy of access, areas of untouched forests, and with seven railroad outlets and two navigable rivers, Rome stands, in natural advantages, pre-eminently above any other proud and pretentious city within the limits of this proud and ambitious commonwealth.

THE HEALTH OF ROME IS UNSURPASSED.

*THE UNUSUALLY LOW DEATH RATE IS A PHENOMENON,
STANDING WITHOUT A PEER AT 8.40 PER THOUSAND.
NOT ONE CASE OF CATARRH OR CONSUMPTION EXISTS OR
EVER ORIGINATED WITHIN HER LIMITS.*

Rome has 12,000 inhabitants, has invested in colleges and school buildings about \$300,000; in church building over \$100,000; in her new hotel \$125,000; in the dummy line, just completed, over \$50,000. Her manufactories employ 800 hands, with other enterprises now going up. Her system of water-works and sewerage is unsurpassed. The city is lighted with gas, and negotiations for an electric light plant are now pending. The highways leading to the city are all well macadamized. The Post-office Department has recently made Rome a free postal delivery office. The annual business of the city is about \$12,000,000, with the trade constantly increasing. The yearly range of temperature at Rome, between the average highest and lowest, is about 84 degrees; the mean temperature is 60.6 degrees. About seven months intervene between the first and the last killing frosts of the year. There is no better society to be found anywhere.

The Rome Land Company (J. W. Rounsaville, President, T. F. Howell, Treasurer, and J. L. Bass, Secretary and Business Manager) will donate ample grounds to, and otherwise aid, any worthy manufacturing enterprise that may locate here.

Send for circulars and pamphlets.

GADSDEN, ALA.

"The Hub of the Mineral Belt."

— ONLY —

IRON AND COAL

City in Alabama with River Transportation.

THE GADSDEN LAND AND IMPROVEMENT CO.

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City, and have fine location on river and railroad for

MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this FAVORED LOCALITY. No place in the South has such Wonderful Advantages. Situated in the midst of the RICHEST IRON SECTION in the State, at the foot of Lookout Mountain on the banks of a Navigable River (THE BEAUTIFUL COOSA), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the FINEST BUILDING STONE all around us, with

Uninterrupted Health, and the Purest and Best Water, and Finest Drainage of any City in the State,

Gadsden should become the

→ GREATEST MANUFACTURING CENTER OF ALABAMA. ←

The Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever flowing Coosa, navigable the year round, gives us as *FINE TRANSPORTATION FACILITIES* as any other city enjoys.

We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills, Grist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities, Atlanta and Rome, Ga.

WE WANT Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furniture Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.

Liberal Grants of Land will be made by THE GADSDEN LAND & IMPROVEMENT CO., to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS

M. L. FOSTER, Sec. & Treas.

THE GADSDEN LAND & IMPROVEMENT CO.

Post-Office Box 145.

GADSDEN, ALABAMA.

ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

★ CITY OF TALLADEGA, ★

Which, according to statistics, is the **MOST HEALTHFUL CITY IN ALABAMA**, and the County Seat of Talladega County.

THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.

TALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE.

THE CITY HAS

AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and **THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE.** The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

SYNODICAL FEMALE INSTITUTE, Property valued at \$50,000.

D. D. & B. INSTITUTE, Property valued at \$150,000.

BLIND INSTITUTE, (in course of construction,) property valued at \$150,000.

FOSTER COLLEGE, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

← TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE. →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a **SUPERIOR QUALITY OF GAS.** Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

A LARGE FURNACE PLANT gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. **FOUR LARGE LUMBER MILLS**, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leaved yellow Pine of this country. **FOUR BRICK YARDS** are in active operation. A SASH, DOOR and BLIND FACTORY, a FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL, and various other industries are in successful operation, and the TALLADEGA ICE CO. cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent. within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance. Coal is within twenty miles by rail.

THE TALLADEGA LAND & IMPROVEMENT CO. owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. **SPRING LAKE PARK** is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

The Talladega Land & Improvement Co., ÷ Talladega, Ala.

SHEFFIELD, Colbert County, Ala.

The Iron Manufacturing Center of the South.

BEING at the head of navigation, and on the south bank of the Tennessee river, Sheffield is the natural outlet for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best distributing point over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. Four railroads certain, and several others assured. Principal shops of Memphis & Charleston Railroad will be erected here pursuant to written contract. These will employ between four hundred and five hundred mechanics, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

Five Blast Furnaces Now Under Construction,

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that iron can be manufactured more cheaply at Sheffield than at Birmingham, and its river transportation facilities will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

A first-class daily newspaper is regularly issued. Furniture Factory, Bottling Works, Bakery, Dummy Street Railroad, Electric Lights, Agricultural Implement Works, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five-story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Paint Works, Stove Works and Compress now being erected. Other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

Drainage excellent. Splendid opening for men of push and energy. No "Old Foggy" element here. No better point for profitable investment.

Sites for Manufacturing Enterprises,

And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; August 21st, 1887, by actual count, 2,588. Increase of population, 300 per cent. in eight months, and only limited by accommodations.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for fluxing iron in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of brown hematite iron ore within twenty miles, along the lines of two Sheffield railroads. The Sheffield & Birmingham Railroad runs through the heart of the Warrior Coal Fields, which abound in first-class coking, steam, gas and grate coal. Timber is abundant and cheap.

The Memphis & Charleston Railroad and the Sheffield & Birmingham Railroad are now in operation into Sheffield. The Louisville & Nashville Railroad Co. is now extending its Nashville, Florence and Sheffield division, which will be completed to Sheffield before July 1st, 1888. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the best combined river and railroad transportation center in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. More are needed. For further information address

ALFRED H. MOSES, Vice-Prest. and Manager

Sheffield Land, Iron & Coal Co., - Sheffield, Ala.

FLORENCE, ALA.

County Seat of Lauderdale County.

At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,
which will be open Jan. 1st, 1888.

SITUATED on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

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Five Large Blast Furnaces.
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Three Planing Mills,

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One Flour Mill,
One Wooden-Ware Factory.

One Cotton Mill,
One Cotton Compress and Ice
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Three Hand-Brick Yards.

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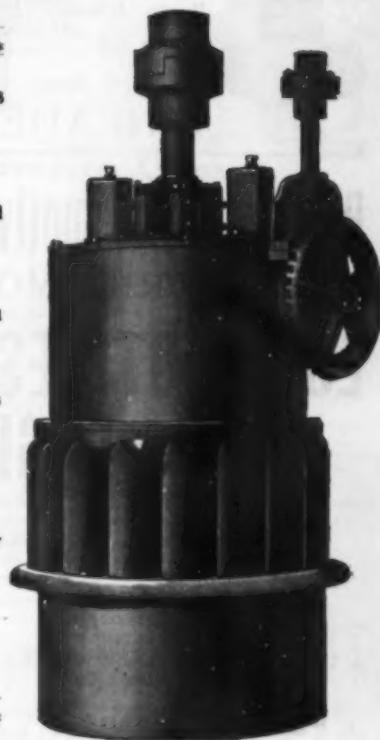
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	B. Merry, Berzelia, Ga.	1-21		Hope Mills, Hope, N. C.	1-36	
	J. B. Connelly, Augusta, Ga.	1-39	1884.	Porter Mfg. Co., Clarksville, Ga.	1-39	
	Summerville Mills, Augusta, Ga.	1-27		Fairmount Mfg. Co., Williston, Ga.	1-45	
1880.	Pee Dee Mfg. Co., Rockingham, N. C.	1-39		E. I. Du Pont, De Nemours & Co., Wilmington, Del.	1-28	
	Langley Mfg. Co., Langley, S. C.	1-15		Geo. W. Brackenridge, San Antonio, Texas	1-25	
	Clifton Mfg. Co., Clifton, S. C.	1-34		Young & Hack, Augusta, Ga.	1-45	
	Piedmont Mfg. Co., Piedmont, S. C.	1-34	1885.	Richmond & Alleghany R. R. Co., Richmond, Va.	1-28	
1881.	D. E. Converse, Glendale, S. C.	1-18		San Antonio Water Works, San Antonio, Texas	1-31	
	Eagle & Phoenix Mfg. Co., Columbus, Ga.	1-36		James Riddle & Son, Wilmington, Del.	1-39	
	Arctic Ice Co., Augusta, Ga.	1-30	1886.	Roswell Mfg. Co., Roswell, Ga.	1-36	
	" " " " " "	1-33		Thomas M. Holt, Haw River, N. C.	1-60	
	" " " " " "	1-15		Reedy River Mfg. Co., Reedy River Factory, S. C.	1-36	
	Clifton Mfg. Co., Clifton, S. C.	1-34		Jessup & Moore Paper Co., Wilm'n, Del.	1-48	
	Dr. J. S. Boyd, Clay Hill, Ga.	1-15		" " " " " "	1-31	
	Thomas M. Holt, Haw River, N. C.	1-48		Marietta Paper Mfg. Co., Marietta, Ga.	1-21	
	Eagle & Phoenix Mfg. Co., Columbus, Ga.	1-18		" " " " " "	1-30	
	Princeton Mfg. Co., Athens, Ga.	1-30		Augusta Factory, Augusta, Ga.	1-48	
1882.	D. E. Converse & Co., Glendale, S. C.	1-18		Lockwood & Kampman, San Antonio, Tex.	1-36	
	H. A. Merry, Berzelia, Ga.	1-27		" " " " " "	1-18	
	E. Lockhart, Eubanks, Ga.	1-27	1887.	Durham Water Works, Durham, N. C.	1-36	
	South Carolina R. R. Co., Charleston, S. C.	1-28		Richmond Paper Mfg. Co., Richmond, Va.	1-36	
	Roswell Mfg. Co., Roswell, Ga.	1-30		Augusta Electric Light Co., Augusta, Ga.	1-36	
	Richmond & Alleghany R. R. Co., Richmond, Va.	1-9		Petersburg Electric Light Co., Petersburg, Va.	1-39	
	Riverside Cotton Mills, Danville, Va.	1-42		J. N. Williamson, Gibsonville, N. C.	1-39	
	Leak, Wall & McRae, Rockingham, N. C.	1-40		Riverside Cotton Mills, Danville, Va.	1-48	
1883.	Marietta Paper Mfg. Co., Marietta, Ga.	1-18		C. J. Milne & Son, Wilmington, Del.	1-48	
	" " " " " "	1-24		Porter Mfg. Co., Clarksville, Ga.	1-48	
	J. A. Harris, Holcomb's Rock, Va.	1-15				
	D. E. Converse & Co., Glendale, S. C.	1-18				
	The Roberdel Mfg. Co., Rockingham, N. C.	1-28				
	Pacolet Mfg. Co., Pacolet, S. C.	1-34				
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	J. C. Watson & Bro., Ridge Springs, S. C.	1-21				

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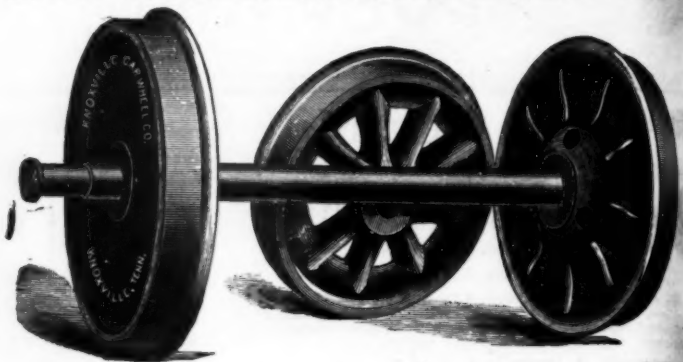
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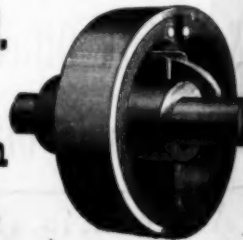
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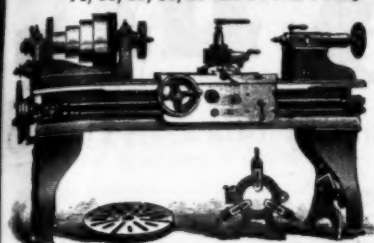
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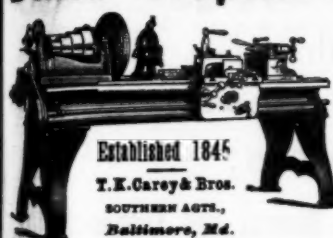


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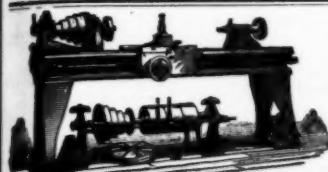
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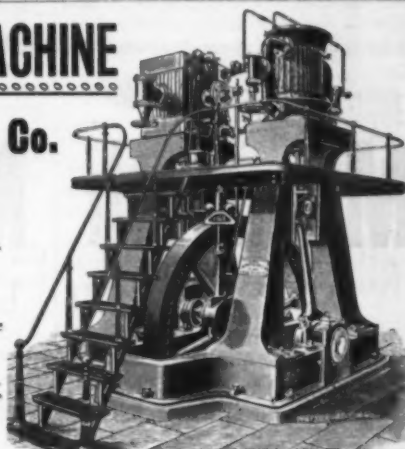
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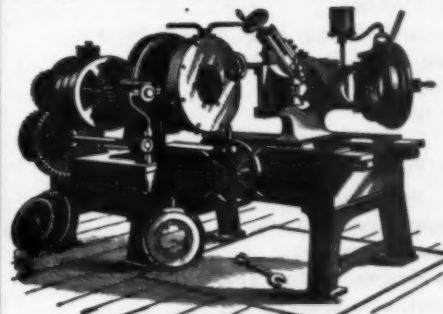
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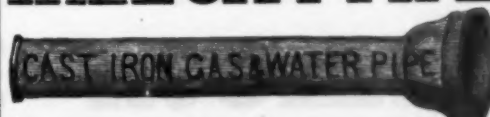
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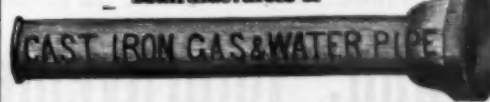
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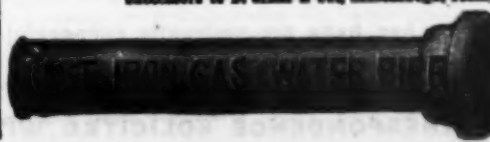
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Offers outside investors better inducements to locate than any other

 CITY IN THE SOUTH. 

AS A CITY OF Mammoth MANUFACTURING Enterprises,

She has few equals and no superiors in the South.

There have been located at Decatur in the last few months the following Industries :

THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. Has 50,000 ACRES of Iron, Coal, Mineral and Timber LANDS.

United States Rolling Stock Company's Plant, from Urbana, Ohio,
\$1,000,000.

Louisville & Nashville Railway Construction Shops, \$300,000.

Charcoal Company's plant, costing \$120,000.

A seventy-ton Charcoal Iron Furnace, costing \$190,000.

A one hundred-ton Blast Iron Furnace, costing \$225,000.

The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.

The American Oak Extract Company's plant, costing \$60,000.

Ivens & Sons Steam Boiler and Engine Works, costing \$100,000.

Morse Cotton Compress plant, costing \$60,000.

Southern Horse Nail Company, \$100,000.

Decatur Lumber Company, Saw and Planing Mills, costing \$50,000.

Berthard & Co., Sash, Door and Blind Factory, cost \$15,000.

The Decatur Street Railway Company.

The Plumbers' Supply Co., \$25,000.

The Telephone Company.

The Alabama Lumber & Fruit Package Co.

Brush Electric Light Company, cost \$10,000.

The Ironton Wheelbarrow Company, cost \$25,000.

The St. Louis Investment Company, \$200,000.

Howland & Co's Water Works System, costing \$200,000.

Bleymeyer Artificial Ice Company, cost \$10,000.

Four Mammoth Brickyards.

Jones, Poley & Co's Lumber Yards.

The Hoosier Mills & Building Company.

The Gate City Sash & Door Company.

Decatur Car Wheel & Construction Company, \$60,000.

Arantz Bro's Mills and Lumber Yards.

Grant & Co's Furniture Factory.

Decatur Carriage Company.

Southern Lumber Company.

H. S. Freeman's Mills and Lumber Yards.

The Alabama Farmer's Friend Fence Machine Company.

The Decatur Artificial Stone Company.

Decatur Chain and Architectural Iron Works, capital \$100,000.

Natural Gas Company, capital \$200,000.

First National Bank, capital \$100,000.

The Exchange Bank of Decatur, capital \$100,000.

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Decatur Building Association, capital \$300,000.

Decatur Building Company, capital \$1,000,000.

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Two daily papers, three weekly papers.

Two hotels—one \$100,000, completed, and one \$300,000 being built; the largest in the South.

Grand Opera House, \$100,000.

THERE ARE OTHER

Mammoth Enterprises

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

Decatur Land, Improvement & Furnace Company.

E. C. GORDON, President.

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This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS.

CONSTRUCTION DEPARTMENT

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Anniston—Church.—John W. Noble, lately mentioned as to build a large church for the Episcopalians, has let the contract to John C. Allen. It will cost \$40,000 or more.

Anniston—Dummy Railroad.—The Adair Park & Dummy Line Co. have asked for a permit to build a dummy railroad.

Anniston—Pipe Works.—The Anniston Pipe Works are receiving bids for the brick work of their main building. It will be about 510x90 feet.

Anniston—Wire Works.—Lee C. Moore, of Trenton, N. J., is negotiating to remove his wire works to Anniston.

Anniston—Brick Works.—Mr. Clardy contemplates starting brick works.

Anniston—Railroad.—The report referred to last week that the Anniston & Atlantic Railroad has been purchased by the Central Railroad & Banking Co. is not confirmed.

Bessemer—Opera House.—William Berner will erect a block of buildings at Second avenue and Nineteenth street. The upper part is to be used as an opera house.

Bessemer—Water Works.—The Bessemer Water Works, just built, are being extended.

Bessemer—Sewerage System.—The Bessemer Land & Improvement Co. will extend their sewerage system, and have ordered pipe.

Bessemer—Residence.—B. Roden will, it is stated, build a residence to cost \$30,000.

Birmingham—Smelting Works.—J. M. Sullivan, Goldsmith B. West, M. T. Singleton, Arthur R. Lightfoot and others have incorporated the Southern Smelting & Refining Co., capital stock \$150,000. They contemplate erecting a smelting plant at or near Talladega.

Birmingham—Belton Gilreath, R. F. Stewart and J. F. B. Jackson have incorporated the Gilreath Construction Co., capital stock \$150,000, to do a contracting business.

Birmingham—Hardware Factory.—The Birmingham Hardware Manufacturing Co., capital stock \$150,000, has been organized with H. M. Caldwell as president. The company will operate the Birmingham Pin & Tack Factory, and the plant of the Birmingham Hoe & Tool Co., previously reported as moved from Binghamton, N. Y., to Birmingham. They have also purchased the plant of the Frazer Fork & Tool Co., of Baldwinsville, N. Y., which will also be moved to Birmingham.

Birmingham—Roundhouse.—The contract to build the roundhouse for the Columbus & Western Railroad Co., previously mentioned, has been awarded to McFarland Bros.

Birmingham—Church.—The Methodists will build a church at East Birmingham.

Birmingham—Soap Works.—The Birmingham Soap Works have issued \$15,000 of bonds to operate their works on a larger scale, previously reported.

Clanton—Saw Mill.—W. H. Burton is

rebuilding his saw mill near Clanton, reported in this issue as burned. The loss was \$1,000.

Columbia—Bridge.—The contract to build a bridge across the Chattahoochee river for the extension of the Central Railroad (office, Savannah, Ga.) has been let to the Atlanta Bridge Co., of Atlanta, Ga. The bridge will be 300 feet long.

Decatur—Warehouse.—The Standard Oil Co. will build a warehouse.

Decatur—Blacksmith Shop.—Jong & Jarvis, machinists, are erecting a new blacksmith shop.

Gadsden—Railroad.—The Tennessee & Coosa Railroad Co. have let the contract for the grading, masonry and bridging on the unfinished portion of the old road from Gadsden to Guntersville, 36 miles, and the 40-mile extension to Huntsville, previously reported, to Danforth & Armstrong, of Birmingham. The cost will be over \$1,000,000.

Irondale—Hotel.—The Irondale Land & Improvement Co. have contracted for a 25-room hotel.

Irondale—Wagon Factory.—A wagon factory is reported to be started. If correct the Irondale Land & Improvement Co. can give particulars.

Jacksonville—Paint Mill.—J. A. Gaboury and others will build the paint mill reported last week.

Jasper—Railroad.—The Sheffield & Birmingham Coal, Iron & Railroad Co. (office, Sheffield) will extend their road at once from Jasper to a point on the Georgia Pacific Railroad, 8 miles, previously reported.

Live Oak—Shingle Mill.—A shingle mill is to be started soon.

Mobile—Courthouse.—Proposals for rebuilding the county courthouse will be received until June 18 by P. Williams, Jr.

Montgomery—Building.—The building lately reported as to be erected by the Standard Club, will be four stories, and the cost, including ground, will be \$30,000.

Montgomery—Building.—Proposals for erecting the Moses Building, previously reported, will be received until July 3 by the Montgomery Real Estate Co. It is to be seven stories high, with a front of 77 feet on Commerce street and 80 feet on Court Square.

Montgomery—Fertilizer.—The Alabama Fertilizer Co. will soon commence work on the building for their new works at Riverside, previously mentioned. It will be 100x250 feet.

Opelika—Trunk Factory.—A trunk factory is contemplated, and Z. Helman wants to correspond with parties who can furnish machinery and materials.

Oxford—Iron Bridges.—The contract to build one of the iron bridges lately mentioned, has been let to the Birmingham Iron Bridge Co., of Birmingham, at \$2,980, and the contract for the other to George H. Crofts, of Atlanta, Ga., at \$3,250.

Talladega—Railroad.—The Talladega & Coosa Valley Railroad Co. are thinking of extending their road from Talladega to Newnan, Ga., and will, if present plans are perfected, begin work within a few weeks.

Talladega—Wood-working Factory.—It is reported Farrar & Higgins will remove their planing mill from Anniston to Talladega and add a wood-working factory.

Talladega—Gold Mining.—The Alabama Gold Mining Co., lately reported as chartered at Birmingham, contemplate erecting machinery soon to develop their mine.

Troy—Fertilizer Works.—The Troy Fertilizer Co., lately reported as to add a cotton seed oil mill, acid chambers and a cotton gin to their fertilizer factory, have

purchased the plant of the Pike County Guano Co., and will make the improvements above stated.

Troy—Evaporating Factory.—The Troy Evaporating Co. will double the capacity of their factory.

Troy—Telephone Line.—A company has been formed to build a telephone line from Troy to Montgomery.

Tuskaloosa—Electric Lights.—The Tuskaloosa University are negotiating for electric light machinery for their buildings.

Uniontown—Railroad.—S. S. Pickering, J. C. Welch, Carl Ernst, B. F. Hanwood and others have chartered the Uniontown, Newbern & Dayton Railroad Co., capital stock \$100,000, to build a railroad from Uniontown to Dayton.

ARKANSAS.

Arkansas—Saw Mill.—J. V. Campbell, of Moulton, Iowa, contemplates erecting a saw mill at some point in Arkansas.

Arkansas—Saw Mill.—N. H. Lawson, of Maysville, Miss., contemplates erecting a saw mill in Arkansas.

Beebe—Railroad.—A \$25,000 subscription has been raised for the projected Kansas City, Arkansas & Louisiana Railroad.

Camden—Electric Light Plant.—A company has been formed to erect the electric light plant lately mentioned, and will do so if enough subscribers for lights are obtained. W. F. Avera can give information.

Fort Smith—Oil Lands.—John McDaniels, J. K. Foltz, W. Woodson, E. Hunt and others are prospecting for oil lands and contemplate organizing a stock company for their development.

Hot Springs—Gas Works.—The new gas works lately mentioned as to be built by the Hot Springs Gas Co. to replace those burned will have a capacity about double that of the old works. P. J. Ledwidge has contracted to erect the buildings.

Little Rock—Tile Works.—S. H. Marks, of Washington, O., is thinking of establishing tile works.

Little Rock—Machine Shop.—The Little Rock Dummy Railroad Co. have commenced work on their machine shop, previously reported. It will be 34x100 feet.

Little Rock—Building.—James R. Miller is preparing to erect a three-story brick building, 160x40 feet.

Malvern—Lumber.—The Malvern Lumber Co., capital stock \$50,000, has been incorporated by A. Strauss, M. A. Nulson, Minnie Nulson and Otilie Strauss.

Monticello—Railroad.—The right of way is being secured for the Kansas City, Arkansas & New Orleans Railroad.

Prairie Grove—School.—A school building to cost \$6,000 will probably be erected.

Prairie Grove—Oil Lands.—The Union Oil Co., of Fort Smith, are leasing oil lands and will probably soon begin developing.

FLORIDA.

Cedar Key—Bucket and Tub Machinery.—James O. Andrews contemplates starting a bucket and tub factory and wants to purchase machinery.

Cedar Key—Laundry.—A steam laundry is being started.

Chuluota—Hotel.—A company is being formed to build a 40-room hotel.

Daytona—Ice Factory.—J. M. Jolly and others, previously reported as contemplating building a 3 ton ice factory and a cold storage warehouse, have incorporated as the Daytona Ice & Refrigerating Co., capital stock \$10,000. They have let the contract for their building to Bartlett & Green.

Miikka—Canning Factory.—A fish canning factory is projected.

Orlando—Church.—The Presbyterians are receiving bids for building their church, previously reported. The cost is estimated at \$14,000.

Palatka—Street Railroad.—William P. Craig, Martin Griffin and others have lately chartered the Palatka & Heights Street Railway Co., capital stock \$10,000.

Palm Springs—Canning Factory.—W. L. Church, drawer 1,000, Pittsburgh, Pa., will start a canning factory in the fall. He wants circulars of machinery.

Sanford—Buildings.—The Plant Investment Co. will erect a large block of buildings.

Tallahassee—Wine Factory.—It is reported that Emile Dubois has formed a company to manufacture wine.

Tallahassee—Knitting Factory.—A company is being formed to start a hosiery and knitting factory, and the address of manufacturers of machinery for such a factory is wanted by G. W. Saxon.

Tampa—Cigar Factory.—R. Monne, of New York, has decided to move his cigar factory to Tampa, previously mentioned. He will erect a three-story factory, 50x300 feet, to cost \$18,000.

Tampa—Bridge.—The King Iron Bridge Co., of Cleveland, O., have been awarded the contract to build the bridge across the Hillsborough river, previously mentioned at \$13,800.

Trabue—Ice Factory.—There is talk of an ice factory being built at Punta Gorda.

GEORGIA.

Albany—Hotel.—It is probable that arrangements will probably soon be made for building the hotel previously reported.

Athens—Hotel.—A hotel will probably be built.

Atlanta—Electric Lights.—Electric light machinery is being put in at the Markham House, with a capacity for 400 lights.

Atlanta—Electric Lights.—Electric light machinery is being put in the cotton-seed oil mill owned by the American Cotton Oil Trust.

Atlanta—J. M. Arrowood and others have chartered the West Atlanta Land Co., capital stock \$3,000.

Atlanta—Wagon Factory.—A. D. Bellamy, W. C. Carter, R. H. Baker and G. A. Howell have chartered the Atlanta Wagon Co., capital stock \$50,000, to manufacture and sell wagons. The company will succeed the Atlanta Wagon & Timber Co.

Atlanta—The Southern Dispatch Lumber Line, capital stock \$10,000, has been chartered by G. J. Cramer and others.

Atlanta—Warehouse.—Sciple Sons are building a warehouse, 50x100 feet, and putting in coal and lime chutes.

Atlanta—Granite Quarries.—The Atlanta Granite, Land & Improvement Co. has been organized with W. M. Pendleton as president, and J. B. Redwine, treasurer. They will open granite quarries near Conyers.

Augusta—Hotel.—J. F. Burnham, of Moultrieville, S. C., contemplates building a hotel.

Boston—Saw Mill and Tram Road.—Western parties have purchased timber lands near Boston and will build a saw mill and a tram road.

Brunswick—Planing Mill.—A large planing mill is reported to be built.

Brunswick—Docks.—The East Tennessee, Virginia & Georgia Railroad Co. have let the contract to build their new dock extensions, previously mentioned, to R. D. Meader and Littlefield & Tison.

Cartersville.—The Cartersville Real Estate & Investment Co., capital stock \$10,000, has been chartered by A. B. Cunyus and others.

Cedartown—Iron Mine.—John O. Waddell has opened an iron ore mine near Cedartown.

Columbus—Hosiery Factory.—Walker Bros. contemplate starting a hosiery factory and want to purchase machinery.

Crawford—Oil Mill.—L. F. Edwards contemplates erecting a cotton-seed oil mill next fall.

Dawson—Oil Mill.—The Dawson Oil Co. have not enlarged their cotton-seed oil mill as stated last week, but are preparing to do so.

Elberton—Oil Mill.—The American Cotton Oil Trust (office at New York) will, it is reported, establish an oil mill.

Flowers Branch—Wagon Factory.—New machinery is being added to the wagon factory of Bagwell & Gower.

Flowers Branch—Furniture Factory.—B. F. Stedham has purchased additional machinery for his furniture factory.

Gainesville—Shoe Factory.—Sell & Yearwood, lately reported as to increase the capacity of their shoe factory, have let the contract for a new building, two stories, 30x100 feet.

Gainesville—Water Works.—Water works are to be built. The mayor can give particulars.

Gainesville—Electric Light Plant.—The Gainesville Light Co. has been organized and will erect an electric light plant at once, machinery having been ordered. S. C. Dunlap is president; J. W. Smith, vice-president, and E. H. Jewell, secretary and treasurer.

La Fayette.—S. B. Logan, of Chattanooga, Tenn., has been prospecting with a view to starting a stove factory.

La Grange—Wagon Factory.—A. P. Jones and others are working up a company to start a wagon factory. The capital stock proposed is \$20,000.

La Grange—Machine Shop, &c.—A company is being organized to enlarge the foundry of J. T. Buchanan and add a machine shop. The capital stock will be about \$7,000.

La Grange—Water Works.—Water works are reported as projected. The mayor can give information if true.

Long Pond—Saw Mill.—M. C. Ulmer and R. I. Hinley have purchased a site to build a saw mill.

Macon—Laboratory.—Bids for building a laboratory at Vineville will be received by Thomas W. Troy.

Newnan—School.—The school board will erect a two-story, eight-room brick building.

Prior's—Ore Washers.—C. A. Wood, reported last week as opening iron ore mines, is preparing to erect two ore washers by October.

Rome—Broom Factory.—Parker, Leech & Parker, reported last week as contemplating moving their broom factory from Tallapoosa to Rome, will not do so.

Rome—Depot.—Raleigh Reese has received the contract to build the depot for the Rome & Decatur Railroad previously reported.

Rome—Excelsior and Mattress Factory.—The Rome Excelsior & Mattress Co., previously reported, have organized. E. F. McGhee is treasurer. Work on buildings will be commenced at once. The capital stock is \$10,000.

Savannah—Bridges.—The Atlanta Bridge Co., of Atlanta, have contracted to build 22 spans of bridges along the Central Railroad between Atlanta and Savannah.

Tallapoosa—Glass Works.—The Tallapoosa Glass Works Co., reported last week, have purchased machinery. They will also furnish gas to private parties for illuminating purposes.

Ty Ty—Depot.—The Brunswick & Western Railroad Co. (office, Brunswick) will build a new depot, 100x200 feet.

Westonia—Planing Mill and Dry-kiln.—S. R. & J. D. Weston will soon rebuild their dry-kiln reported last week as burned. They will build a planing mill at Westonia or Albany.

KENTUCKY.

Ashland—Cooperage Works.—The board of trade are negotiating for the removal of the cooperage works of Newsom & Money-penny from Columbus, O., to Ashland.

Ashland—Lamps.—William Louderrach, Charles W. Scofield and James A. Brown have chartered the United States Incandescent Gas Lamp Co. to manufacture and sell lamps, &c. The capital stock authorized is \$1,000,000.

Ashland—Mining.—The Henrietta Mining Co., capital stock \$200,000, has been chartered by William T. Smith, Edgar B. Morton, John S. Christie, Henry R. Curtis, and George E. Donance.

Ashland—Depots.—Conn Bros., of Winchester, have been awarded the contract to build all depots along the Maysville & Big Sandy Railroad from Ashland to Cincinnati.

Birdsville—Coal Mine.—The Ohio River Coal & Improvement Co. are having a shaft sunk in their coal lands.

Burlington—Courthouse.—Proposals for building a courthouse will be received until June 25 by McDonald Bros., architects, Louisville.

Covington—Residence.—W. Russell will build a residence to cost \$8,000.

Covington—School.—The school board will erect a three-story brick school building to cost \$11,500. Plans have been prepared.

Covington—Advertising.—J. S. Lape, J. T. Perkins and others have formed the Railway Indicator Co. to manufacture, sell and rent articles used in advertising in public conveyances.

Enterprise—Brick Works.—The Tygart Fire Clay Co. will establish works to manufacture common brick and possibly pressed brick.

Frankfort.—The Capital Construction Co., previously reported, has been organized with J. M. Thomas as president; R. W. McRery, secretary, and Grant Green, treasurer. The company will probably contract to build the Kentucky Midland Railroad.

Franklin—Building.—A building is to be erected for the Franklin Female College at a cost of possibly \$12,000.

Franklin—School.—A school building is to be erected at a cost of about \$6,000. The mayor can give particulars.

Greenwood—Railroad.—The contract to build the two miles of railroad for the Beaver Creek & Cumberland Railroad Co., previously mentioned, has been let to R. H. Young & Co., of Louisville, at \$17,260.65.

Louisville—Hotel.—A. C. Semple and others have chartered the Little Falls Hotel Co., capital stock \$60,000, to build a hotel at Little Falls, Minn.

Louisville.—William Tillman, L. S. Parsons, E. L. Palmer and others have chartered the Magnetic Water Co., capital stock \$10,000, to develop mineral and natural gas lands &c.

Louisville—Buildings.—A. O. Brannin will erect four brick buildings on Chestnut street to cost \$6,000, and a \$5,000 brick dwelling on Fourth avenue.

Louisville—Saw Works.—Machinery is being added to the Henry Disston & Sons branch saw works.

Maysville—Electric Light Plant.—Mr. King, representing the Edison Electric Light Co., is negotiating to put in a plant.

Owensboro—Publishing.—Urey Woodson, C. T. Sutton and George E. Bridges have chartered the Owensboro Messenger Co., capital stock \$15,000.

Paducah—Furnace and Pipe Works.—It is reported that Pennsylvania parties are preparing to build an iron furnace and pipe

works. If true the Paducah Land, Coal & Iron Co. can give particulars.

Paducah—Iron furnace.—It is reported that a charcoal iron furnace is to be built by parties who are now formulating plans. The Paducah Land, Coal & Iron Co. can give particulars if true.

Trenton—Hotel.—James Y. Cabaniss is organizing a company to build a hotel.

Winchester—Electric Light Plant.—J. D. Simpson, S. D. Kerr, A. H. Hampton, A. Stewart, H. P. Thompson and others have formed the Winchester Electric Light & Power Co. They have contracted for machinery. The Edison system will be used. The capital stock is stated as \$15,000.

LOUISIANA.

Alexandria—Cotton Factory.—A cotton factory is projected.

Alexandria—Timber Lands.—A. C. Brown, of Marionette, Wis., is purchasing timber lands.

New Orleans.—The Honduras Transit & Improvement Co., capital stock \$200,000, has been organized with John L. Davis, Ulson L. Brown and others as directors.

New Orleans—Factory.—Mr. McCormack contemplates organizing a stock company to manufacture his cotton cleaner.

New Orleans—Railroad.—John F. Hardie and others have asked for permit to build a belt railroad.

New Orleans—Theatre.—The Garden District Theatre Co. and the People's Theatre Co. have consolidated, and will build a fine new theatre, probably the one lately mentioned. Will soon begin work.

MARYLAND.

Baltimore—Hospital.—E. F. Baldwin has prepared plans for the hospital previously mentioned as to be built on Calvert street near Saratoga. The front part will be 114x45 feet, and the back part 114x30 feet, connected by an L 30x32 feet.

Baltimore—Church.—The contract to erect the church corner Baltimore and Washington streets for the Methodist's, previously reported, has been let to Smith & Sons at \$34,000. It is to be of stone, 87x90 feet.

Baltimore—Synagogue.—The Russian Polish Hebrew Congregation will shortly erect a synagogue on South High streets.

Baltimore—Church.—Work will soon be commenced on the church previously reported as to be erected at Caroline and Oliver streets by the Catholics. It will be 50x100 feet, and will cost us \$30,000. Plans have been prepared by Mr. Kennedy.

Baltimore—School.—J. Theodore Oster, building inspector, has prepared plans for the school previously reported to be erected at Broadway and Bank streets. It is to be two stories, 101x125 feet.

Baltimore—Buildings.—Frank Herbert will erect 6 two-story buildings on Aliceanna street, and Joseph Hampson, Jr., 3 three-story brick buildings on Presstman street.

Catoctin Furnace—Furnaces, &c.—The Catoctin Furnace Iron Works property has been sold to Thomas Gorsuch, of Frederick, subject to the ratification of the court.

Centerville—Water Works.—The town will decide by a popular vote on July 2 whether or not to build the water works previously mentioned.

Darlington—Wagon Factory.—Horace Stokes is building a wagon factory about 35x128 feet.

Derwood—Warehouse.—Syddanes, Jones & Co. will add a \$3,500 warehouse to their flour mill.

Hagerstown—Spoke Factory.—The Hagerstown Spoke & Bending Co. will probably rebuild their factory reported last week as burned.

High Point—Canning Factory.—August Martin is building a canning factory.

Hughesville—Hosiery Factory.—A large hosiery factory has been built.

Hughesville—Canning Factory.—A canning factory is to be erected.

Hughesville—Flour Mill.—It is reported that a flour mill will be built during the summer.

St. Michael's—Lime Works.—John S. Blades & Co. have lately started lime works.

Washington, D. C.—Church.—Philip N. Dwyer has the contract to erect the building corner Second and C streets for St. Joseph's Church. It is to be of brown stone, 80x146 feet, with a tower 113 feet high. The cost will be \$40,000.

Washington, D. C.—Building.—A new building will be built for the Child's Summer Home. Robert I. Fleming is architect.

Washington, D. C.—Buildings.—John E. Beall will erect 6 brick dwellings on D street, to cost \$15,000; W. H. Dyer, 4 buildings on H and Twentieth streets, to cost \$20,000; A. M. Douglas will erect 2 brick dwellings on H street, to cost \$6,000; Joseph R. Boss, 4 dwellings on Sixth street, to cost \$8,000, and John L. Weaver, 8 brick dwellings on Spruce and Linden streets, to cost \$16,000.

MISSISSIPPI.

Bay St. Louis—Brick-yard.—George Arbo, Emile H. Hoffman and Joseph F. Cazeneave have started the brick-yard lately mentioned.

Columbus—Railroad.—The Kansas City, Memphis & Birmingham Railroad Co. (office, Birmingham, Ala.), lately mentioned as to extend their Aberdeen branch from Aberdeen to Columbus, are now making surveys. The length will be 28 miles.

Jackson.—A \$50,000 land improvement and immigration association has been formed.

Meridian—Cotton Press Factory.—Stanford & Sons will start the manufacture of cotton presses, and want to purchase planing machinery to plane 8x8 inches, band saw, rip and cut-off saw, wood lath and a boring machine.

Meridian.—I. I. Barber, A. B. Wagner, J. L. Hughes, L. A. Lloyd and others have chartered the Southwestern Machinery Co., capital stock \$50,000, to manufacture and sell machinery, &c.

Mississippi—Bridge.—The contract to build the iron drawbridge over the Yazoo river for the extension of the Georgia Pacific Railroad previously mentioned, has been received by the New Jersey Steel & Iron Co., of Trenton, N. J.

Mississippi—Bridge.—The Atlanta Bridge Co., of Atlanta, Ga., have been awarded the contract to build an iron drawbridge across the Sunflower river for the extension of the Georgia Pacific Railroad, previously reported.

Oceola—Canning Factory.—John O. Blackwood contemplates starting a canning factory, and wants to purchase all necessary machinery.

Rodney—Saw and Oil Mills.—The Rodney Saw & Oil Mills, reported last week as burned, will be rebuilt. Want to purchase saw mill and gin machinery.

Sardis—Gin.—D. G. Papper has purchased machinery to rebuild his gin at Belzonia, lately reported as burned.

Tupelo—Ice Factory.—There is talk of building an ice factory.

Tupelo—College.—A college is to be built at a cost of \$10,000.

Yazoo.—The Yazoo Immigration, Land & Improvement Co., capital stock \$50,000, has been chartered by R. A. Pickett, J. M. Chisom, E. C. Thompson, S. M. Dyer and others, to deal in lands, encourage immigration, &c.

Yazoo City—Warehouse.—The Yazoo City Warehouse Co. will build an addition to their warehouse, 110x150 feet.

NORTH CAROLINA.

Asheville—Wagon Factory.—Woody & Hatch have added some machinery to their wagon factory.

Asheville—Sewerage System.—The city will decide on July 10 whether or not to issue \$100,000 to build a sewerage system.

Charlotte—Printing.—William S. Hemby, proprietor The Chronicle, will put some new machinery in his printing office.

Charlotte—Stamp Mill.—An 80-stamp mill will be erected at the Brewer mine, in Mecklenburg county.

Charlotte—Railroad.—John S. Webb has contracted to make surveys for the railroad to Weldon, previously reported as projected.

Goldsboro—Building.—An addition will be built to the Eastern Insane Asylum.

Henderson.—H. H. Southerland is enlarging his tinware shop to start the manufacture of tobacco flues.

Leaksville—Tannery, &c.—The Leaksville Tanning & Lumber Co. has been chartered.

Lenoir—Telephone Line.—Harper, Bernhardt & Co. and others will build a telephone line to Patterson.

Morganton—Cotton Factory.—E. F. Reid, S. D. Dunnivant and Hardy Hicks will build a cotton factory, and have selected a site. They will soon let contracts for the buildings.

Raleigh—Electric Light Plant.—The Raleigh Gas Light Co. are preparing to erect a building for their electric light plant previously reported. They have purchased a 60 horse-power engine and another dynamo.

Salisbury—Gold Mine.—It is reported that the shafts at the Barringer gold mine will be sunk deeper and that new machinery will be erected.

Tarboro—Cotton Factory.—The company previously reported as being formed to build a cotton factory, has been organized with O. C. Farrar as president; Dennis Simmons, vice-president, and H. L. Staton, treasurer. The capital stock will be \$100,000.

Wilmington—Oil Mill.—Work will probably soon be commenced on the cotton-seed oil mill previously reported as to be built. Negotiations for a site are being made.

SOUTH CAROLINA.

Anderson—Flour Mill.—It is reported that the Anderson Oil Mills Co. will build a flour mill.

Anderson—Cotton Mill.—J. A. Brock, W. W. Humphries, J. M. Sullivan, John E. Peoples and George E. Prince have chartered the Anderson Cotton Mills to build the cotton mill lately mentioned. Their capital stock will be \$100,000. The capacity of the contemplated mill is 10,000 spindles and 300 looms.

Georgetown—Cotton Compress.—William Graves is now erecting the cotton compress referred to last week.

Greenville—Warehouse.—Mr. Haynes will build a cotton warehouse, 50x100 feet.

Greenville—Electric Light Plant.—Asbury & Son have purchased machinery for an arc electric light plant to be added to their gas works, previously reported, and will probably add machinery for incandescent lighting.

Newberry—Sash, Door and Blind Factory.—S. T. Davis is adding machinery to his sash, door and blind factory.

Rock Hill—Spike and Handle Factory.—A spike and handle factory is projected.

Seneca—Water Works.—The system of water works referred to last week will be built by the Richmond & Danville Railroad Co.

Seneca—Cotton Factory.—L. W. Jordan, C. J. Cary and others are organizing a company to build a cotton factory of about 10,000 spindles capacity. About \$45,000 or more have been raised. The capital stock will be about \$200,000.

Walterboro—Lumber Mill.—J. R. Stokes will build a lumber mill.

Walterboro—Lumber Mill.—It is reported that a lumber mill will be erected by Westcoat & Stokes.

Winnsboro—Tannery.—Parties are considering the erection of a tannery.

Yorkville—Marble Quarry.—John R. Ashe and Mr. Happerfield will develop a marble quarry.

TENNESSEE.

Ashland City—Stave Factory.—Mr. Eppenaar will start a stave factory.

Athens—Planing Mill.—Markley & Thurston will, it is stated, add considerable machinery to their planing mill.

Athens—Fence Factory.—Hallaran & Tuttle have started the manufacture of fencing.

Bristol—Railroad.—Goodson (Va.) has voted a subscription of \$25,000 to the Bristol & Danville Railroad.

Chattanooga—Hardware Factory.—Carter, Magill & Ewing, hardware dealers, have organized as the Carter, Magill & Ewing Hardware Manufacturing Co. and contemplate starting the manufacture of hardware.

Chattanooga—Building.—L. Rosenau will erect a brick building to cost \$8,000. William Dover & Sons have the contract.

Chattanooga—Lumber Mill, &c.—Heyser Bros., W. Reynolds and W. Thompson, of Jackson, Mich., reported last week as purchasing and to enlarge saw mill of Loomis & Wheeler, have purchased also a large tract of timber lands in North Carolina. They will enlarge the mill after August, and will probably move their wood-working factory to Chattanooga later in the year.

Chattanooga—Saw Works.—C. P. Turney is enlarging his saw works and contemplates building another addition.

Chattanooga—Machine Works.—The Chattanooga Machinery Co., previously reported as moving their machine works to Chattanooga, will enlarge in the near future.

Chattanooga—Cider and Vinegar Factory.—A cider and vinegar factory will be started at East End. The East End Land Co. can give particulars.

Chattanooga—Hospital.—The Chattanooga Hospital Association are making efforts to raise money to build a hospital to cost \$50,000.

Columbia—Elevator.—McLemore Bros. contemplate building a grain elevator to cost \$15,000.

Dyersburg—Stave Factory.—Smith, Wilson & Co., of Flint, Mich., have purchased a site to erect a factory to manufacture staves for lard and pork barrels. Will commence work at once.

Helenwood.—The Helenwood Land & Improvement Co. has been chartered.

Helenwood—Coal Mining, &c.—The Helenwood Coal & Coke Co. has been chartered.

Holder's Store—Lumber Mills.—The Tennessee Saw & Planing Mills, reported last week as adding another saw, will add a surfacer and matcher now and put in a scroll saw during the summer.

Knoxville—Railroad.—R. N. Hood, H. H. Taylor, W. M. Hood, J. M. Hood and John Hood have chartered the Atlantic & Pacific Railway Co. to build a railroad from near Knoxville to the Tennessee river, about 1/4 mile long.

Knoxville—Buildings.—B. A. Arthur and J. C. Schneider will each erect store buildings.

Knoxville—Building.—McCallum Bros. have broken ground for a large brick building.

Knoxville—Gas Works.—The Knoxville Gas Co. will lay about \$15,000 of additional mains.

Knoxville—Buildings.—B. L. Smith, W. B. Lockett, L. David and others have char-

tered the Jackson Street Improvement Co. They will erect several buildings.

McMinnville—Woolen Mill.—Cantrell & Faulkner will put new boilers in their Tennessee Woolen Mills at once.

Memphis—Cooperage Works.—The Chickasaw Cooperage Co. are building an addition to their works.

Memphis—Bridge—Norrison & Corthell, engineers, have the contract to build the bridge across the Mississippi river, previously reported.

Memphis—Telegraph Line.—The Midland Telegraph Co. has been chartered by T. C. Leake, Jr., John Overton, Jr., D. T. Porter and others to build a telegraph line along the Tennessee Midland Railroad.

Memphis—Saw Mill.—The Memphis Hard Wood Manufacturing Co. are preparing to erect a saw mill with a daily capacity of 25 M feet.

Memphis—Cooperage Works.—The Memphis Cooperage Co. has been organized and will erect works.

Murfreesboro—Cotton Mill.—The report referred to last week that a company is being organized to build a cotton mill is not true.

Newmarket—Building.—The trustees of Newmarket Academy will erect a new building.

North Middleton—Flour Mill.—A stock company has been formed to build a roller flour mill.

Pulaski—Water Works.—Bids for building the water works, reported last week to be constructed, are wanted by John T. Allen.

Riceville—Iron Mining.—The Hiwassee Manufacturing Co., of Chattanooga, are, it is reported, opening an iron ore mine with a view to extensively developing if satisfactory.

South Pittsburg—Stove Works.—The Perry Stove Works, reported in this issue as burned, will probably be rebuilt. The loss is about \$200,000.

Trenton—Railroad.—A subscription of \$40,000 has been voted to the Tennessee Central & Alabama Railroad.

TEXAS.

Athens—Canning Factory.—The company has been formed to start the canning factory reported last week. M. D. Bell can probably give information.

Ballinger—Flour.—A roller flour mill is reported to be erected.

Cleburne—Depot.—The Gulf, Colorado & Santa Fe Railroad Co. (office, Galveston) are about commencing work on their new passenger depot previously mentioned.

Collinsville—Coal.—Messrs. Collins and Yeager are prospecting for coal.

Dallas—Electric Light Plant.—The Dallas Electric Light Co. will, it is reported, spend about \$40,000 in improving and enlarging their plant.

Dallas—Iron Bridges.—The county commissioners, reported last week as contemplating building another bridge across the Trinity river, contemplate building seven or eight iron bridges in Dallas county.

Dallas.—The North Dallas Improvement Co., capital stock \$100,000, has been chartered by O. P. Bowser, E. Sweeney and Oliver Thomas.

Dallas—Oil Mill.—It is stated that A. L. Porter, of Chicago, Ill., has been making inquiries as to the feasibility of building a cotton-seed oil mill.

Decatur—Flour Mill.—D. Rosenberg & Co., previously mentioned as building a flour mill, have contracted for machinery with a daily capacity of 125 barrels.

El Paso—Wood-working Factory.—Buchanan & Powers have added some new machinery to their wood working factory.

Ennis—Water Works.—W. M. Johnson has made surveys for the water works lately

mentioned as projected. The mayor can give particulars.

Ennis—Oil Mill.—The Farmers' Alliance, lately mentioned as contemplating building a flour mill, talk of building a cotton-seed oil mill also.

Fort Worth—Barb Wire Factory.—E. C. Chase, E. W. Taylor and W. F. Lake are organizing a company to start a barb wire factory. The capital stock will be \$30,000.

Gonzales—Cotton Compress.—There is talk of a cotton compress being erected, W. V. Collins can probably give information if anything is done.

Laredo—Railroad.—The San Antonio & Aransas Pass Railroad Co. (office, San Antonio) will extend their road from Collins to Laredo.

Marshall—Water Works.—Mr. Supthin has received the contract to build the water works previously reported. The cost will be about \$60,000.

Mineola—Canning Factory.—A canning factory is projected.

Mount Pleasant—Cotton Compress.—C. C. Carr, F. W. Fitzpatrick and T. C. Morris are interested in the company who will erect the compress lately mentioned. Files, Taylor & Files, of Hillsboro, have contracted to furnish the press.

Orange—Planing Mill, &c.—Lutcher & Moore, reported last week as having added some machinery to their planing mill, are building an addition to their planing mill, 50x128 feet, and replacing their old machinery with new. They are also building three large dry kilns.

Palestine—Asphalt Mine.—R. Byrnes, of Galveston, has ordered machinery to develop asphalt deposits.

San Angelo—Bridge.—The Atchinson, Topeka & Santa Fe Railroad Co. (office, Topeka, Kans.), reported previously as to extend their road from San Angelo to Ballinger, will build a bridge across the Colorado river. The superstructure will cost about \$16,000.

San Angelo.—The San Angelo Building Association, capital stock \$15,000, has been formed.

Vernon—Flour Mill.—Work is about being commenced on the 150-barrel roller flour mill lately mentioned.

VIRGINIA.

Alexandria—Houses.—A. J. Wedderburn will build ten houses.

Alexandria—Depot.—The Baltimore & Potomac Railroad Co. (office, Baltimore, Md.) will probably build a new depot.

Bluefield—Hotel.—John P. Pettyjohn & Co., of Lynchburg, have, it is reported, received the contract to build a \$25,000 hotel.

Claremont—Canning Factory.—The Claremont Canning Co. has been organized, and are building the factory previously reported. A. B. Randall is president. The capital stock is to be not less than \$5,000.

Columbia Furnace—Iron Furnaces, &c.—The sale of the Columbia-Liberty iron furnace property to George W. Pearson, of Trenton, N. J., has been confirmed. The property includes two cold blast charcoal furnaces.

Crewe—Water Works.—The Glamorgan Co., of Lynchburg, have contracted to build a system of water works. The cost, it is stated, will be \$10,000.

Lexington—Marble Lands.—Philadelphia parties are negotiating for the marble lands of Jaybush Willis near Buchanan, and will develop if purchased.

Lynchburg—Water Works.—The city council have appropriated \$20,000 to purchase an additional pump for the water works, with a daily capacity of 3,000,000 gallons. Bids for furnishing the pump are wanted by the water works committee.

Lynchburg—Belt Railroad.—The Lynchburg Belt Railroad Co., previously reported as to build a belt railroad have temporarily organized with John P. Pettyjohn as president.

Newport News—Courthouse and Jail.—A courthouse and jail are to be built by Warwick county.

Norfolk—Wood Mill.—It is stated that J. C. Kenneth & Co., of New York City, will establish a kindling wood mill.

Red Bluff—Iron Furnace.—The Lobdell Car Wheel Co. (office, Wilmington, Del.) will improve their Brown Hill furnace during the summer.

Richmond—Street Railroad.—The Richmond Passenger Railway Co. will extend their road to the exposition grounds.

Roanoke—Rolling Mill.—The Roanoke Rolling Mill Co. have awarded the contract for erecting their mill, previously reported, to Cofrod & Evans, of Pottstown, Pa.

Salem—Cotton Factory.—It is reported that Messrs. Du Shane, of Pennsylvania, are thinking of building a cotton mill.

Stuart's Draft—Iron Mining.—Waddy & Co., of Greenville, have leased iron ore lands and will develop.

Waverly—Brick Works.—R. W. Chappell and G. E. Burt are starting brick works. They will want machinery soon.

Waverly—Lumber Mill.—The Waverly Lumber Co. are thinking of adding to their mill machinery for manufacturing sash, doors and blinds.

Waverly—Hotel and Street Railroad.—A hotel and street railroad are talked of.

Winchester.—The Shenandoah Valley Land & Improvement Co. has been formed to encourage immigration, etc.

WEST VIRGINIA.

Ansted—Coal Mines.—Mason & Hoge have leased coal mines, and will shortly be shipping coal.

Barboursville—Seminary.—A seminary is reported to be erected at a cost of \$50,000.

Clarksburg—Water Works.—The water works commissioners have let the contract for furnishing pipe for the water works, previously reported, to R. D. Wood & Co., of Philadelphia, Pa., at \$18 18 20; the contract for the reservoir tanks to Cox & Morrison at \$5,547, and the contract for the pumping machinery, boilers, etc., to A. C. Osborn.

Fairmont—Coke.—The Montana Coal & Coke Co. are reported as building the 100 coke ovens previously mentioned.

Fairmont—Coke Ovens.—It is reported that the West Fairmont & Consolidated Gas Coal Co. are building 40 coke ovens.

Fayette Station—Bridge.—The Wrought Iron Bridge Co., of Canton, O., have contracted to build the bridge across the New river, lately mentioned.

Glenwood—New Town.—A new town is being laid out about one mile from Glenwood. J. M. Hunter, of Cincinnati, O., is interested.

Guyandotte—The Guyandotte Building & Loan Association has been chartered by James M. Beale and others.

Marion County—Coke Ovens.—It is stated that the New England & Western Coal Co. are building 200 new ovens, and the Briton Coal & Coke Co., 125 ovens.

Martinsburg—Coal Mine.—Henry St. John Shepherd is opening a coal mine about 12 miles from Martinsburg.

Parkersburg—Artesian Wells.—The Baltimore & Ohio Railroad Co. will sink artesian wells along their road from Parkersburg to Grafton.

Ravenswood—Bridge.—The Wrought Iron Bridge Co., of Canton, Ohio, has contracted to build an iron bridge across Lick river.

Ritchie C. H.—Coal Mine.—C. S. Martin is opening a coal mine near Ritchie C. H.

Shepherdstown—Saw Mill.—The saw mill of L. W. Poffenberger, lately mentioned as burned, will be rebuilt.

St. Albans—Lumber Mill.—S. M. Fontaine, I. N. Fontaine, J. D. Lewis, C. McAlister and S. W. A. Rice have chartered the Western Lumber Co. to manufacture lumber, etc. The capital stock is limited to \$50,000.

Webster—Bark Mill.—J. M. Lake will add a tan bark mill to his grist mill.

Wheeling—Reservoir.—The contract to build the reservoir, lately mentioned, has been let by board of water works trustees to W. M. Chisolm, of East Liverpool, Ohio, at \$30,909. He will soon commence work.

Winfield—Canning Factory.—A canning factory is being agitated.

Winifrede—Coal Mines.—Smith & Black, lately reported as opening the old Coalmont coal mines, will be known as the Black Peerless Coal Co.

BURNED.

Cornersville, Tenn.—The flour mill and wool-carding machinery of Clayton & Davis; loss \$7,000.

Edwardsville, Ala.—The saw mill of W. K. Owen.

La Grange, Ga.—The mill and gin of John Humphries.

Lucia, N. C.—The saw mill and cotton gin of R. T. Cansler, of King's Mountain.

Paris, Texas.—The cigar factory of W. R. Fitzpatrick; loss \$2,000.

Rocky Mount, Va.—The planing mill and grist mill of Hale Garrett & Son; loss \$3,000.

Salem, N. C.—The bone mill and cotton gin of J. F. Shaffner; loss \$5,000.

Sardis, N. C.—The grist mill and gin of S. C. Reid.

South Pittsburgh, Tenn.—The Perry Stove Works; loss \$200,000. Will probably be rebuilt.

Station Belden, Texas.—The grist mill of Singletary & Baker damaged by a boiler explosion.

Walter, N. C.—The saw mill of Coor & Taylor damaged by a boiler explosion.

Waxahachie, Texas.—The Mirror Printing Office; loss \$2,500.

Winston, Ark.—The roundhouse of the St. Louis & San Francisco Railroad Co. destroyed by a flood.

Will Rebuild Mill.

RODNEY, MISS., May 25, 1888.

Editor Manufacturers' Record:

Our mill was burned on the morning of the 17th inst. We intend rebuilding. Insurance was light. We want prices on saw mill and gin machinery.

RODNEY OIL MILL.

To Build \$24,000 Depot.

CHICAGO, ILL., May 21, 1888.

Editor Manufacturers' Record:

We will build a passenger depot at Jackson, Miss., this year that will cost about \$24,000. Dimensions are 200 feet long by 36 feet wide, with wing 25x36 feet. Material to be brick, with stone trimmings; inside finish, cypress.

ILLINOIS CENTRAL R. R. Co.

E. T. JEFFERY, Manager.

Bids for Constructing Water Works Wanted.

PULASKI, TENN., May 22, 1888.

Editor Manufacturers' Record:

As soon as we can get an estimate made out, the water works proposition will be submitted to a vote. We are anxious for bidders, and want them at an early day as possible.

JOHN T. ALLER.

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Bark Extract Machinery.—B. B. Campbell, Sandidges, Va., wants to correspond with manufacturers of bark extract machinery.

Boiler.—T. W. Worsham & Co., Petersburg, Va., want a 20 horse power boiler.

Brick machinery will be wanted soon by R. W. Chappel and G. E. Burt, Waverly, Va.

Brick Machinery.—Robb & McCreary, Evergreen, Ala., want to purchase brick machinery. They prefer second hand machinery if in good order.

Bridge.—The county commissioners, Towson, Md., are receiving bids for building a bridge over the Gunpowder river at head of Loch Raven. It will be one span, 17 feet wide by 167 feet long.

Bridges.—Proposals for building three bridges in Clay county, Miss., will be received until June 4 by J. W. Brady, West Point.

Bucket and Tub Machinery.—James O. Andrews, Cedar Key, Fla., wants to purchase machinery for manufacturing buckets and tubs.

Canning Machinery.—W. L. Church, drawer 1,000, Pittsburgh, Pa., wants circulars, etc., of machinery for a canning factory.

Canning Machinery.—John O. Blackwood, Osceola, Miss., wants to purchase machinery for a canning factory.

Canning Machinery.—W. R. Burgess, Greensboro, N. C., wants full particulars and price-lists of kettles for canning factories.

Coiled Hoops.—The Longview Lime Works, Longview, Ala., want the address of manufacturers of coiled hoops used on lime barrels.

Electric Lighting.—Proposals for lighting Jackson, Miss., with electric lights will be received until July 1 by the mayor. The city will take 30 arc lights and the plant is to be owned by the contractor.

Elevator.—Brown & King, Atlanta, Ga., want to purchase an elevator for their new building, 40 feet rise, platform 5x5 feet, and capacity 2,500 lbs.

Engine.—The Dawson Oil Co., Dawson, Ga., want to buy a good second hand engine, 40 horse-power, about 75 revolutions and with heavy fly wheel.

Engine.—A 15 horse power engine is wanted by D. S. H. & G. Aham, S. C.

Fence Machinery.—F. King, Murphy, N. C., wants prices, etc., of fence machinery; also cider and other presses.

Hosiery Machinery.—Walker Bros., Columbus, Ga., want to purchase machinery for manufacturing hosiery.

Ice Boat.—Proposals for building an iron or steel ice boat for the use of harbor and river relief board of Baltimore, Md., will be received until June 16 by W. B. Wilson, 13 Chamber of Commerce Building. Information can be had from Major N. E. Hutton at City Hall.

Iron Cages.—Proposals for putting iron cages in the jail at Vicksburg, Miss., will be received until June 4 by N. J. Bazinsky.

Iron pipe is wanted by J. C. Mills, Brindletown, N. C.

Knitting Machinery.—G. W. Saxon, Tallahassee, Fla., wants the address of

manufacturers of machinery for hosiery and knitting factory.

Lathes.—Prices of new and second-hand iron lathes are wanted by W. R. Burgess, Greensboro, N. C.

Lath Machinery, &c.—George E. Bart, Waverly, Va., wants to purchase lath machinery, edger and cut off and rip saw.

Pipe.—B. M. Wickers, San Antonio, Fla., wants to purchase iron pipe for artesian well, 5 6 and 8 inches.

Plumbing.—Proposals for the plumbing and gas fitting of the United States courthouse at Louisville, Ky., will be received until June 13 by Will A. Freret, Washington, D. C.

Pumping machinery.—Proposals for furnishing an additional pump of 3,000,000 gallons capacity daily for the water works at Lynchburg, Va., will be received by the water works committee.

Rails, &c.—The D. A. Tompkins Co., Charlotte, N. C., desire to purchase rails, splice bars, bolts and nuts, and spikes for about half a mile of side track. Rails to be about 40 lbs. per yard, and all to be delivered at Houston, Texas. Second-hand rails that are in good order would be satisfactory. They may also purchase a second-hand locomotive for delivery at the same point.

Resaw.—Lutcher & Moore, Orange, Texas, want to purchase the best and latest improved resaw to resaw up to 18 inches in width.

Saw mill and gin machinery is wanted by the Rodney Oil Mill, Rodney, Miss.

Shapes and Screws.—J. T. Howard, Bloomingdale, Tenn., wants to purchase some shapes and screws for his tobacco factory.

Spoke, hub and handle machinery is wanted by G. A. Dowd & Co., Dresden, Tenn.

Trunk Machinery.—Z. Helman, Opelika, Ala., wants to correspond with parties who can furnish machinery and materials for manufacturing trunks.

Water Works.—Lutcher & Moore, Orange, Texas, will purchase pump and fixtures for water works.

Water Works.—Bids for building water works at Pulaski, Tenn., are wanted by John T. Allen.

Wood-working Machinery.—Stanford & Sons, Meridian, Miss., want to purchase planing machinery to plane lumber 8x8 inches, band saw, rip and cut-off saw, wood lath and a boring machine.

To Enlarge Machine Works.

CHATTANOOGA, TENN., May 26, 1888.

Editor Manufacturers' Record:

We intend enlarging our plant in the near future, and increasing capacity by addition of milling machine, shaper, planer, drill and lathe.

A pickle factory is locating at East End from Chicago; also a plant for manufacturing cider and vinegar is to be commenced next week.

CHATTANOOGA MACHINERY CO.

Erecting Cotton Compress.

NEW YORK CITY, May 25, 1888.

Editor Manufacturers' Record:

We are erecting in Georgetown, S. C., an improved Taylor hydraulic cotton compress of 150-ton pressure. The material is en route to Georgetown (perhaps has arrived there). The plant will be erected on the water, where ocean steamers can receive cotton from the compress and where the cars can also be loaded with cotton direct to Baltimore or the North. The capacity is from 60 to 100 bales an hour, according to character of labor at hand. The amount of available cotton is 30,000 to 40,000 bales yearly.

WILLIAM GRAVES.

Hosiery Factory to be Started.

COLUMBUS, GA., May 24, 1888.

Editor Manufacturers' Record:

We are preparing to engage in the manufacture of hosiery, and will be glad to correspond with dealers in knitting machinery, and also with an experienced, reliable man to place machinery and superintend the business. Our city is taking on metropolitan airs and doing some very "tong" things in the way of manufacturing, railroads, &c. We have 9 cotton mills already running, 2 under construction, 10 or 15 other smaller plants, a splendid street car service, dummy line and good railroad facilities.

WALKER BROS.

OSCEOLA, ARK., May 25, 1888.

Editor Manufacturers' Record:

I contemplate starting a canning factory at this place with a capacity of 10,000 cans per day, and will want all machinery, &c., necessary for that purpose.

JOHN O. BLACKWOOD.

Cotton Factory Projected.

SENECA, S. C., May 28, 1888.

Editor Manufacturers' Record:

A company is being formed to build a cotton factory. It has only been contemplated for a few days, and have about \$50,000 for it already. C. K. LIVINGSTON.

LOUISVILLE, KY., May 24, 1888.

Editor Manufacturers' Record:

I bought the Shelbyville (Ky.) Gas Works, and will extend the mains and improve the works. The price of gas will be reduced from \$4 per M to \$2 for coal gas.

H. D. FITCH.

ROCKMART, GA., May 21, 1888.

Editor Manufacturers' Record:

E. H. Carty & Co. have commenced working their ochre mine.

R. S. Davis and S. J. Jenkins contemplate erecting a broom factory.

The Rockmart Farmers' Alliance contemplate building a flouring mill. W. B. S. Davis is president of the Alliance, and can give information about the mill. M.

COLUMBIA, TENN., May 21, 1888.

Editor Manufacturers' Record:

We are enlarging our furniture factory, and shall double our capacity. Have lately purchased storehouse and wareroom, and will have three times as much space as our present quarters. OAKES & SARVEN.

Erecting New Building.

ATLANTA, GA., May 22, 1888.

Editor Manufacturers' Record:

Our new building is being rapidly pushed forward to completion, and we expect to get possession by the middle of August. Our building will be three-story and basement, containing 16,000 square feet floor space. It will be a handsome building and especially adapted to our business as manufacturers of and dealers in cotton, woolen and general mill supplies, machinery and tools, &c.

BROWN & KING.

Paint Mill to be Built.

JACKSONVILLE, ALA., May 23, 1888.

Editor Manufacturers' Record:

Immense ochre beds have been discovered, and J. A. Gaboury and others will soon erect paint mill to utilize it.

L. W. GRANT.

FLORENCE, ALA., May 23, 1888.

Editor Manufacturers' Record:

The cost, etc., of union depot has not definitely been fixed, but it will be a handsome structure, say 50x150 feet, with all conveniences for passengers. H. C. WOOD.

Brick Works to be Started.

ENTERPRISE, KY., May 23, 1888.

Editor Manufacturers' Record:

We do not expect to build fire-brick works, at least not this year. We are mining fire-clay for market, and have built an extensive incline so as to dump clay direct into railway cars. We are about to manufacture common red bricks for sale, and probably fine pressed front bricks.

TYGERT FIRE CLAY CO.

PRIORS, GA., May 21, 1888.

Editor Manufacturers' Record:

I am in the mining business and am constantly developing iron ore mines in this section. I am getting ready to erect two iron ore washers in October next.

C. A. WOOD.

MERIDIAN, MISS., May 23, 1888.

Editor Manufacturers' Record:

We will build 1½ miles of new track this summer, commencing in 10 or 15 days.

MERIDIAN STREET RAILROAD.

Will Enlarge Oil Mill.

DAWSON, GA., May 25, 1888.

Editor Manufacturers' Record:

We have not yet enlarged, but are preparing to do so before another season sets in. Would like to buy a good second-hand engine, 40 horse-power, about 75 revolutions, with heavy fly wheel.

DAWSON OIL CO.

Planing Mill to be Built.

SUFFOLK, VA., May 22, 1888.

Editor Manufacturers' Record:

Planing mill will be built here; size and capacity not limited; power will be 120-horse.

JOHN F. HOSTETTER.

MARSHALL, ARK., May 22, 1888.

Editor Manufacturers' Record:

We have the contract to build a stone courthouse at this place.

McCABE & GREENHARD.

Contracted to Build Water Works.

LYNCHBURG, VA., May 26, 1888.

Editor Manufacturers' Record:

We have closed a contract with the N. & W. R. R. for water works at Crewe, a new town upon their line.

THE GLAMORGAN CO.

Will Enlarge Works.

AMERICUS, GA., May 25, 1888.

Editor Manufacturers' Record:

We will enlarge our present works; also add a complete fertilizer factory, with latest machinery and acid plant.

AMERICUS GUANO CO.

Enlarging Planing Mill.

ORANGE, TEXAS, May 25, 1888.

Editor Manufacturers' Record:

We are building three large dry-kilns with a capacity of 100 M feet daily. Are building an addition to our planing mill, 50x128 feet, and taking out old and replacing with new machinery throughout our mill. Are looking for best and latest improved resaw, to resaw up to 18 inches in width; also for pump and fixtures for water works.

LUTCHER & MOORE.

CEDARTOWN, GA., May 25, 1888.

Editor Manufacturers' Record:

John O. Waddell has opened an ore bank near this place and one at Oreville, on East Tennessee, Virginia & Georgia Railroad, both of which are of superior quality, and both are being vigorously worked.

HARDWICK & Co.

A Democratic Protest Against Free Trade Teachings.

Will the South Heed the Warning?

SAN ANTONIO, TEX., May 25, 1888.

Editor Manufacturers' Record:

Some time ago I gave you my views in brief upon the tariff question, which I then thought would end my correspondence on the subject; but I am so deeply impressed with its importance and the great interests to be affected by erroneous legislation in that regard, that I cannot forbear trespassing again upon your time and space with some further views on the subject. It seems to me the Democratic party is departing from the teachings of the fathers when it proclaims that "any sort of protection is unconstitutional," and the "tariff a system of legalized robbery of the people." The framers of the constitution and their contemporaries surely are its best expounders, and if they, when the ink was scarcely dry upon its written pages, when the echo of the voices of the men that framed and discussed its various provision had scarcely ceased to reverberate along the corridors of old Independence Hall, when the masterly letters of the Federalist by Madison, Jay and Hamilton, expounding its meaning and upholding its principles, were fresh in their minds, thought it consistent, wise and expedient to pass a "protective tariff bill," surely we should not now be heard to say that protection is unconstitutional and any tariff a robbery.

The early presidents of the republic, whose government was formed and organized under that constitution, favored protection and recommended it in their messages to Congress. Jefferson, Madison and Monroe, the triumvirate from whose giant intellects and patriotic hearts first sprang the principles that gave vitality and force to the Democratic party and secured prosperity and greatness for our loved country, were all opposed to excise or internal revenue taxes, and favored import duties upon foreign products and manufactures, both as a means of governmental support and protection to our infant industries. Yet we now hear men proclaiming themselves in stentorian tones to be Jeffersonian democrats, and in the same breath denouncing the principles which he inculcated and practiced as violations of that constitution he had sworn to protect and defend, and a robbery of the people in whose championship he was the noblest Roman of them all. Strange, passing strange, that men of intellect and patriotism should suffer themselves to be deluded by the mythical idea, "free trade," and to be led away by this *ignis fatuus* from the teachings of the fathers into the heretical bogs and sloughs of the latter-day saintly self-constituted defenders of the constitution and guardians of the rights and interests of the "dear people." The masses of the people, I am happy in believing, are honest and sincere, and if guided by the noble and patriotic spirit which actuated our forefathers in the early days of the republic, will do right, but if influenced by the demagogue and mere office seeker, whose tendency is to evil, there is no foretelling what calamitous results may befall our country, and especially our beloved South. It behooves us all, then, to be up and doing, to gird on our armor in the cause of right, and if needs be throw ourselves in the breach, and with all the might of honest hearts and firm purpose, battle against the opposing hosts that, if successful, will demoralize our party and bring again ruin and sorrow to our hearthstones, where peace and joy, happy twain, are once more shedding their benign influences. Where, then, should the "solid South" now stand? Where peace and joy invite, where all her material interests, enforced by reason, ex-

perience and common sense call her, or blindly follow this *fetich*, whose worship leads to unseen woes? The South has within her borders all the elements of a great, a successful and a prosperous people, and if not crippled by unwise legislation on the tariff, will steadily march on to her place beside the most prosperous commercial and manufacturing sections of the Union. Why can she not, then, see her interest as identified, not with any clique or faction, (for free trade is a factional heresy and not democratic,) but with the great commercial centers of the country, and align herself solidly with them? Before the war the planter, the typical but untitled baron of lordly acres and princely wealth, relying upon the productions of the soil, was naturally jealous of manufacturing establishments, not only because of the innovations upon his habits and customs and preconceived ideas of degradation in labor incident to the system under which he was born and reared, but because of the class of people they were likely to bring in contact and competition with his slaves. Hence, leading and controlling as he did, the mind of the Southern people, their prepossessions all gravitated naturally and artificially away from protection and towards "free trade." But all that is now changed. Those swelling acres of bursting balls of fleecy staple or waving grain have in most cases been subdivided and passed into different hands. "King Cotton" has been shorn of his strength, or rather his serried ranks have been riven asunder, his forces scattered, and he needs now to reform his broken battalions, concentrate his forces, thoroughly drill and equip them, and instead of sending out mere foraging parties of "raw material," send forth whole armies of wool and warp, with closed ranks well filled, in compact masses, and victory will again be his. Invite capital and labor to plant their spindles and their looms in the great centers of your fleecy staple, to set their axes and their saws in your great timber belts to level those forests that have for ages stood in silent grandeur, bowing their tall heads and tossing their long branches with every passing breeze that sighs through their dense foliage a requiem to departed years. From the peaks of Otter to Lookout Mountain, and far beyond towards the gulf, and even transversely to the granite-covered hills of Texas, her bowels are bursting with coal and iron, mica and kaolin, and in some parts even the more precious metals abound. These are all sources of fabulous wealth and undreamed-of prosperity under a wise system of tariff legislation that, while it gives "revenue only," yet incidentally protects the infant enterprises necessary to the development of these untold resources that lie imbedded in and beneath the soil. But subjected to the blighting influences of free trade, they will slumber on in their silent beds unproductive capital to the owners, and useless masses of rock to the commercial world. The constant and persistent agitation of the slavery question precipitated the disruption of the Union with all its succeeding horrors of fratricidal strife, ending in the political and financial bankruptcy of the South, from which she is but now emerging and striding on with bold and forward steps to a higher plane of independent wealth and commercial greatness than she had ever hoped to attain before. Just so, the agitation of the tariff in and out of Congress is detrimental to trade and a clog upon enterprise, and if persisted in until "free trade" shall become the policy of our government, will bring about more disastrous results financially than its kindred politico-economical heresy, secession, ever did. Both are beautiful theories, and theoretically are right and proper enough, but economically and practically both are false and heretical, as experience in the one

case has clearly demonstrated, and in the other given us equally as clear indications whenever we have even approached the point of demonstration; for in every instance when the tariff has been reduced or additional articles placed upon the free list the country has suffered most disastrously. There are unfortunately a class of men in politics who rush into the opposite extreme from the position assumed by their opponents, and these are the men that are making the "free trade" cry, while the large majority of the Democratic party, desiring a revision of the tariff, yet favor "a tariff for revenue only, with incidental protection." With this latter class we must strive and hope to curb the impetuosity of the extremist, and settle down to the safe old democratic doctrine as taught by our fathers. To these I appeal, in view of the mighty interest at stake, to align themselves on the old and well tried theories and practices of the past, and stay the tide of rushing waters on to the great ocean of destruction. We are rushing madly on into the vortex of ruin, and our enemies see it and rejoice. If the fiat shall go out from St. Louis that the Democratic party is pledged to free trade, the excitement of the contest, the party lash, may secure the victory in this campaign, but before another presidential term shall have filled its cycle of years there will be such a reaction in public sentiment growing out of the condition of the country as will sweep everything before it and cover us with inglorious defeat. I send forth this last warning cry to my fellow Democrats of the South, beseeching them to check the onward march of the free trader ere it is too late, and trust that, as "bread cast upon the waters, it may be seen and gathered after many days." ELIAS EDMONDS.

Developing Arkansas Mineral Interests.

CENTRE POINT, ARK., May 14, 1888.
Editor Manufacturers' Record:

More work was done here last year than ever has been done in Montgomery county in mining. Several mines are being worked by the United States Antimony Co. They have over 60 claims and do the assessment work on all of them; they have extensive machinery and are working on several mines at present, from which they are taking out antimony ore which will yield 90 per cent pure metal. This company sells no mines, and they mean business. The Texarkana Northern Railroad will be built to this place this summer, and the contract has already been let. Texarkana gives \$100,000 towards it and the Antimony Co. give a good sum. The Antimony Co. are working two mines which are down 100 feet. They are prepared to sink them down 300 feet with their present machinery, and one thing has been developed, that the deeper they go the richer the ore. The veins are true fissure and start in at the surface about four inches wide. Antimony is worth 18 cents a pound, and a mine that is down 75 feet will yield 3 to 5 tons per day, and can be worked for about \$3 per ton. They have lead mines which yield 40 to 60 per cent pure lead, 2 to 10 ounces in silver; they have galena ore which runs up to 50 ounces in silver. The beauty of this ore is it all lies in a true fissure vein. I shall visit the silver mines next week; they are running several tunnels. The Arkansas Development Co. are now doing good work at their manganese mines, which runs from 45 to 63 per cent. manganese, 38 to 50 per cent. iron, little silica, and runs less than 1 per cent. phosphorus.

C. F. DRAKE.

NEWBERRY, S. C., May 22, 1888.

Editor Manufacturers' Record:

I am filling my shop with a complete line of sash, door and blind machinery. Will start up soon.

H. T. DAVIS.

The Reduction in the Price of Pig Iron.

We have received the following communication from Warren, Wood & Co., 115 Broadway, New York:

The chief sensation to the readers of the somewhat bombastic proclamation of the Thomas Iron Co. in the last issue of the Iron Age of a cut of \$2 per ton in the price of foundry iron would seem to be one of amazement that a company that has so long assumed to control the Eastern market and to have produced so much superior to anything made in the South, would so easily abandon its assumed position and turn in most "unheroic" flight, when only its "outposts" had been captured and before the fight had really opened. The giving back to their customers of \$2 per ton on their contracts for 120,000 tons of iron is the clearest possible admission of their fear that some of their old "regulars" might be induced by fair prices to try a Tennessee or Alabama iron, and thereby discover that they are in every particular equal to Thomas, and for many purposes are greatly its superior. The (alleged) heroic method of treatment in the desperate effort to "shut out the South" will not avail, for the great ironmasters of that region, with their modern furnaces of immense capacity can lay their iron on dock in New York less than its cost of production in the Lehigh or Schuylkill valleys and still have a margin of profit. There can be no question but that Tennessee and Alabama irons have been introduced into the Eastern market to stay. If, however, Mr. Clarke insists on inaugurating a "war of prices" the result must not only be disastrous to him, but to all consumers who suffer so severely in a well published "war of prices," compelling them to make a much larger reduction on manufactured goods than the reduction they get off the price of pig iron. Nor is it always necessary even to meet Thomas prices, for sales of round lots of choice Tennessee irons were made several days after Mr. Clarke's pronouncement was given to the world at \$19 ex-ship New York. The editorial assumption of the Iron Age, that Mr. Clarke's application of this cut in price to existing contracts will compel sellers of Southern iron to take like action, is without foundation. They do not make "jug handle" contracts, nor do their buyers ask it. As well might they ask to pay an advance price if the market should turn upward. They contract to deliver a specified quantity of pig iron at an agreed price. If the market advances the buyer gets every pound of his iron as agreed, and if perchance the market drops he will, of course, "take the medicine," just as he would expect the furnace to do, hoping to catch them on the next turn. Taken altogether, this great "sensation of the week" seems to us very like a bit of "stage thunder," and not calculated to scare the audience, as they know it won't rain out where they are. To those furnaces that have made contracts agreeing to make a reduction of 50 cents less than any competitor, we cheerfully commend Mr. Clarke's action.—Iron Age.

Glass Works.

TALLAPOOSA, GA., May 23, 1888.

Editor Manufacturers' Record:

Our company is just starting; the capital all raised and material ordered.

TALLAPOOSA GLASS WORKS.

Will Rebuild Saw Mill.

SHEPHERDSTOWN, W. VA., May 24, 1888.

Editor Manufacturers' Record:

I do not intend to rebuild my flour mill lately burned, but will rebuild saw mill.

L. W. POFFENBERGER.

Literary Notes.

FRANK LESLIE'S SUNDAY MAGAZINE for June closes the twenty-third semi-annual volume of this well-known monthly, and contains the index to the volume. The contents of the number are timely to the season, and two of the articles relate to Lake Champlain. These are "Bow Arrow Point and the American Canoe Association," by Frederic G. Mather, and "Our Summer on Lake Champlain, the Inland Resort of the Future," by Emily Pierce. Both of these articles are finely and fully illustrated, and they make one long to go thither. Lake George has so long monopolized attention that it is an agreeable change to find Lake Champlain receiving the recognition its beauties merit. "A Visit to Fort Qu'Appelle" depicts, by pen and pencil, an interesting spot in our Canadian neighbor. "The Constitutional Convention of 1787," by Walter Edgar McCann, is interesting, and "Music," by Auslurn Towne, is notable for its curious illustrations. In addition to his sermon and editorial comments Dr. Talmage contributes a capital article on "Woman Her Own Defense." The shorter articles are numerous as usual and very interesting. The whole number is valuable.

THE Marine Engineer is a monthly journal of marine engineering, ship-building and river navigation. The May number contains important papers on forced draught; a description of the "Waddington" electrical submarine vessel; five-inch geometric lathe; the "Nyassa" delta metal steam canoe; compound surface condensing engines; feed-heaters; industrial notes; launches and trial trips, etc., with illustrations. Subscription \$1.75. E. & F. N. Spon, publishers, 12 Cortlandt street, N. Y.

BABYLAND for June is here, bright as ever. This little magazine is better than candy for keeping your baby in good humor. Why don't you try it once? A year's subscription (50 cents) is a trifle compared with the many hours of entertainment prepared for the little ones. Full of pictures and jingles and little stories. Published by D. Lothrop Co. Any newsdealer or bookseller will forward your subscription.

MIDDLEBURG, FLA., May 24, 1888.

Editor Manufacturers' Record:

We are now building a wood and shingle mill. Will be completed in about one month.

CHALKER & BREWER.

FORT SMITH, ARK., May 26, 1888.

Editor Manufacturers' Record:

A company has been formed to develop oil lands in Arkansas. With five other gentlemen, I am in a stock company of \$1,000,000 capital stock, organized for developing oil lands. J. L. TILLY & CO.

Cotton Yarns and Warps.

Single skeins:		
6s to 10s	15 1/2	@16
12s to 20s	16 1/2	@18
20s to 26s	18	@20
30s	22	@22 1/2
40s	25	@26
50s	28	@30
60s	32	@34
70s	36	@38
80s	40	@42
90s	44	@46
100s	48	@50
110s	52	@54
120s	56	@58
130s	60	@62
140s	64	@66
150s	68	@70
160s	72	@74
170s	76	@78
180s	80	@82
190s	84	@86
200s	88	@90
210s	92	@94
220s	96	@98
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2760s	1112	@1114
2770s	1116	@

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A growing town. Property increasing in value. *Factories invited.*
New enterprises exempt from taxation.

Splendidly located on York river.

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Light Sections Rails and Spikes in stock.

Locomotives, Logging Cars, etc.

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In perfect running order,
Price \$25.00 F. O. B.
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50 Crompton Fancy Cotton Looms, nearly new, 36 inch reed space, for 12 Harnesses, 4 boxes at one end, 1 at the other.
My Store Houses here have over 2 ACRES of storage, which is covered with good machinery, including nearly full systems for Cotton and Woolen Mills.

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1 Lathe, 16 in. swing; 1 Lathe, 10 in. swing; 1 Planer, 24x5 ft. bed; 2 Shears, hand; 2 Punches, hand; 1 Punch, hand or power; Pulleys, Shafting, &c. Also 9 sets Tobacco Shapes, new. For prices, terms, &c., apply to

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Interesting to Travelers South.

The section of the South attracting by its wonderful development and prosperity the attention of the whole world is traversed by the Queen & Crescent Route, (Cincinnati Southern and Associate Roads) Express trains, the fastest in the South, leave Cincinnati daily at 7 55 A. M. and 3 00 P. M. for Chattanooga, Birmingham, Atlanta, Decatur, Gadsden, Tuscaloosa, etc. When going South, do not fail to procure from your nearest agent tickets which read via Cincinnati and the Queen & Crescent Route. Inquiries promptly responded to by H. Colbran, General Passenger Agent, Cincinnati.

CHEAP FARMING LANDS SOUTH

It is a recognized fact that the cheapest farming lands in America to day are in the South, and men of much or moderate means looking for real estate investments, or permanent homes, should not fail to visit the following points, where so many northern people are now settling, viz: Jackson, Tennessee; Aberdeen and Jackson, Mississippi; Hammond, Crowley, Jennings, Welsh and Lake Charles, Louisiana. Round-trip tourist tickets, limited to June 1st, 1888, with stop over privileges south of Cairo, Illinois, are on sale to New Orleans, Jennings and Lake Charles. For rates apply to nearest ticket agent, and be sure your tickets read via the Illinois Central Railroad from Chicago or St. Louis. For pamphlet entitled "Southern Home-Seeker's Guide," and circulars concerning the above named points, address the undersigned, at Manchester, Iowa.

J. F. MERRY.
Gen. West. Pass. Agt.

ELIAS EDMONDS,
Attorney at Law
SAN ANTONIO, TEXAS.

Makes the Litigation of Land Titles a specialty. Will also Lend Money for non-residents upon the best real estate security.

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14 Excursion Cars, in good repair, repainted Pullman, color and lettered to suit. Nearby immediate delivery.
16 Passenger Cars, all that remain of 70, on hand beginning of season.
Locomotives, entirely rebuilt, good as new. We have Passenger, Freight, Mogul, Switching and Motor Patterns for immediate delivery.
Freight Equipment of standard and narrow gauge, in great variety.

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10 WALL STREET.

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President, Vice-Pres. and Treas. Secretary.

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On July 5th, 1888, we will sell at auction all the assets of the North Carolina Millstone Company, formerly doing business at Parkwood, Moore county, N. C., including large tracts of finely timbered and good farming land, the quarry, shops, machinery, &c., from which are made the well known

"Moore County Grit Mills."

Also Saw Mill, Patent Roller Flouring Mills, Ice Machine, Machine Shops and Foundry, all complete and equipped with the best machinery; also large lot of machinery and machinery supplies and finished and unfinished mills. This sale offers a rare opportunity to parties desiring profitable investments in the South. For terms and information address

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ERNEST HAYWOOD,
Receivers of the North Carolina Millstone Company,
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Machinery for Sale.

Two 100 H. P. HORIZONTAL TUBULAR BOILERS, S. H.
Two 60 H. P. Horizontal Tubular Boilers, S. H.
One 40 H. P. Horizontal Tubular Boiler, new.
One 25 H. P. Horizontal Tubular Boiler, new.
One 20 H. P. LOCOMOTIVE BOILER, S. H.
One 15 H. P. Locomotive Boiler, new.
One 17 H. P. Locomotive Boiler, new.
Two 38 H. P. UPRIGHT TUBULAR BOILERS, S. H.
One 25 H. P. Upright Tubular Boiler, S. H.
UPRIGHT BOILERS, all sizes, from 1 to 60 H. P., new.
HORIZONTAL ENGINES, 5 to 100 H. P.
VERTICAL ENGINES, 5 to 20 H. P.
Knowles & Worthington STEAM PUMPS,
TANKS, ETC. Apply to or address,
THOM. C. HANSHOR & CO.
28 Light Street, Baltimore.

Second-hand Machinery in Good Order

FOR SALE CHEAP.
Engine Lathes—54 in. x 30 ft.; 78 in. x 14 ft.; 24 in. x 15 ft.; 1 each 24 in. x 30 ft.; 24 in. x 14 ft.; 24 in. x 10 ft.; 24 in. x 12 ft.; 18 in. x 10 ft.; 20 in. x 10 ft.; 20 in. x 12 ft.; 1 each 16 in. x 8 ft.; 2 each 14 in. x 6 ft.; 1 10 in. x 5 ft.; 4 each 15 in. x 6 ft.; 2 each 21 in. x 4 ft. and 5 ft.; 1 20 in. x 3 1/2 ft., foot power.
1 Brass Turret Lathe.
1 each Planer, 24 in. x 24 in. x 5 and 8 ft.
1 " 30 in. x 30 in. x 8 ft.
1 Planer, 36 in. x 30 in. x 7 ft.
1 " 40 in. x 40 in. x 14 ft.
1 Screw Planer, 18 in. x 3 ft.
1 Shaper, 6-in. stroke. 1 12-in. Shaper, two tables
1 each 12, 15, 20 and 28 in. stroke.
1 24-in. Hendey Shaper.
1 Crank Planer. 6 Lincoln Pat. No. 2 Millers.
1 each 3 and 6 Spindle Gang Drill.
1 each Nos. 1 and 2 Screw Machines. Wire Feed.
1 Pratt & Whitney. Good as new.
1 375-lb. Drop Hammer. Beecher & Pack.
1 400-lb. Merrill Drop Hammer.
1 each 40 & 60 lb. Vertical Hammers.
1 No. 55 Ferracute Press. 1 Nut-Facing Machine.
1 No. 5 Stiles Geared Press.
10 Foot Presses, assorted. 8 Power Presses, assorted.
10 Punching and Shearing Machines, assorted.
1 Return Tubular Boilers, 35 H. P.
1 National Bolt Cutter, sizes, 1/4 in. to 1 in.
1 Bolt Cutter, 3/4 in. to 1 1/4 in. Good order. A J head. Merriman.
1 Bolt Cutter, 3/4 in. to 1 in. Adj. head. Sellers.
1 each Nos. 2 & 3 Garvin Hand Mills. Good as new.
1 Horizontal Engine each 25 and 45 H. P.
1 each 4 and 8 H. P. Portable Engine.
1 2-Spindle Profiling Machine.
1 Horizontal Boring Machine, 36 in. x 6 ft.
1 No. 25 Stiles & Parker Presses.
1 25-in. Hand Saw. Rogers.
1 Power Mortising Machine.
Also full line of New Machinery.
New York Agency TAYLOR MFG. CO., Engines, Boilers, &c. Correspondence solicited.
PRENTISS TOOL AND SUPPLY CO.
P. O. Box 3364. No. 42 Dey St., New York City.

FOR SALE.

1 36-in. 1 Beater Breaker Lapper.
1 36-in. 1 Beater Finisher Evener. } English.
1 36-in. 3 Beater Kinson, with preparator.
1 36-in. 3 Beater, Whiting's.
1 36-in. 1 Beater, Whiting's.
1 30-in. 2 & 3 Beater, Whiting's.
50 36-in. Welman Stripper, Whiting's Cards.
50 36-in. Welman Stripper, Saco Water Power.
50 30-in. Welman Stripper, Whiting's.

All this machinery is first-class. For further particulars apply to

L. GODFREY & CO.
PROVIDENCE, R. I.

IT WILL PROVE

To investigate the proven merits of
THE HARRISON SAFETY BOILER

Before purchasing your steam plant.

Address, Harrison Safety Boiler Works, Philadelphia, Penna. Southern Office, 2 & 4 S. Pryor St. Atlanta, Ga.

TO YOUR INTEREST

CROMPTON "1888" WOOL COMBS.
CROMPTON Loom Works.
WORCESTER, MASS. COTTON, WOOLEN, SILK.
TAPE & CARPET LOOMS.

J. A. V. SMITH,
MANCHESTER, N. H.
MANUFACTURER OF
Steel Speeder Fliers.
One of the oldest manufacturers of Steel Speeder Fliers in the business having centrifugal and spring pressure, and the sole proprietor of certain indispensable improvements that can be procured nowhere else. Those about to erect mills or put in new machinery, will find it to their advantage to write for information.
THE PRICE IS LOWER THAN OTHERS.

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Cronk Hanger Co.	45	Godfrey, L. & Co.	31
Curtis Regulator Co.	52	Goodell & Waters	*
D		Gorton & Lidgerwood Co.	*
Davidson Steam Pump Co.	*	Goulds Mfg. Co.	54
Dean Bros. Steam Pump Works	54	Grand Union Hotel	41
Deane Steam Pump Co.	50	Graham, J. S., & Co.	8
Decatur Land, Imp. & Furnace Co.	24	Gump, A. W. & Co.	48
Defiance Paint Works	33	H	
De Loach Mill Mfg. Co.	6	Haines, Jones & Cadbury	48
Diamond Prospecting Co.	40	Hall, Thos. V. & Co.	23
Dietz, Bernhard	32	Harrington, E., Son & Co.	50
Dixon, Jos., Crucible Co.	32	Harrison Safety Boiler Works	31
Dolph, A. M., Co.	35	Hartford Steam Boiler Inspection & Insurance Co.	49
Draper, Geo. & Sons	10	Haywood, Ernest, Receiver	31
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Egan Co., The	8	Hoen, A. & Co.	35
Whet, M., Jr. & Co.	*	Holmes, E. B.	6
Empire Hydro-Carbon Co.	*	Holton Iron Roofing Co.	49
F		Holyoke Machine Co.	21
Empire Paint & Roofing Co.	49	Hooker-Colville Steam Pump Co.	48
Energy Mfg. Co.	50	Hoopes & Townsend	22
Enterprise Boiler Co.	4	Horton Mfg. Co.	47
G		Houston, Levi	7
Gadsden Land & Improvement Co.	17	Hughes Steam Pump Co.	41
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Gates Iron Works	49	Ideal Mfg. Co.	*
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Gleason Boiler Compound Co.	4	International Mfg. Co.	41
Glen Cove Machine Co., (Lim.)	35	Iron Clad Paint Co.	*
Globe Iron Roof & Corrugating Co.	49	J	
Godfrey, L. & Co.	31	Jarvis Engineering Co.	4
Goodell & Waters	*	Jeffrey Mfg. Co., (a ads.)	50, 40
Gorton & Lidgerwood Co.	*	Jenkins Bros.	48
Goulds Mfg. Co.	54	Joyce, Cridland & Co.	*
Grand Union Hotel	41	K	
Graham, J. S., & Co.	8	Koeler Co.	53
Gump, A. W. & Co.	48	Kendall, Edward & Sons	*
H		Kerr-Murray Mfg. Co.	55
Haines, Jones & Cadbury	48	Kinson Machine Co.	9
Hall, Thos. V. & Co.	23	Kingsland & Douglas Mfg. Co.	6
Harrington, E., Son & Co.	50	Knoxville Car Wheel Co.	22
Harrison Safety Boiler Works	31	L	
Hartford Steam Boiler Inspection & Insurance Co.	49	La France Fire Engine Co.	52
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Hill Clutch Works	22	Leschen, A. & Sons Rope Co.	47
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Hoen, A. & Co.	35	Ligowsky Clay Pigeon Co.	48
Holmes, E. B.	6	Limbert & Co.	*
Holton Iron Roofing Co.	49	Loane, J. W.	50
Holyoke Machine Co.	21	Lock Box	52
Hooker-Colville Steam Pump Co.	48	Lockwood, Greene & Co.	30
Hoopes & Townsend	22	Lodge, Davis & Co.	55
Horton Mfg. Co.	47	Long & Allstatter Co.	44
Houston, Levi	7	Loom Picker Co.	9
Hughes Steam Pump Co.	41	Lowell Card Co.	*
Humphreys & Sayce	31	Ludlow Valve Mfg. Co.	52
Hyndman, W. G. & Co.	49	M	
I		Makepeace, C. R. & Co.	30
Ideal Mfg. Co.	*	Marquette, John N.	5
Ingersoll Rock Drill Co.	1	Mason Regulator Co.	55
International Mfg. Co.	41	McIntosh, Seymour & Co.	4
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J		McShane, H. & Co.	50
Jarvis Engineering Co.	4	Mecklenburg Iron Works	2
Jeffrey Mfg. Co., (a ads.)	50, 40	Medart Patent Pulley Co.	1
Jenkins Bros.	48	Merchant & Co.	56
Joyce, Cridland & Co.	*	Merry, G. F., Gen. West. P. Agent	31
K		Illinois Central Railroad	31
Koeler Co.	53	Metal Wheel Co.	45
Kendall, Edward & Sons	*	Meyers, Fred. J., Mfg. Co.	45
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Kinson Machine Co.	9	Millers Falls Co.	38
Kingsland & Douglas Mfg. Co.	6	Milner & Kettig	23
Knoxville Car Wheel Co.	22	Minnigerode & Ellerbe	22
L		Montague & Co.	22
La France Fire Engine Co.	52	Moosaw, R. C.	30
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Limbert & Co.	*	New York Central Iron Works	56
Loane, J. W.	50	New York Equipment Co.	31
Lock Box	52	New York Stamping Co.	47
Lockwood, Greene & Co.	30	Niagara Stamping & Tool Co.	44
Lodge, Davis & Co.	55	Nicholson File Co.	*
Long & Allstatter Co.	44	Nicholson & Waterman	*
Loom Picker Co.	9	Nordyke & Marmon Co.	1
Lowell Card Co.	*	O	
Ludlow Valve Mfg. Co.	52	Obenmeyer, S., Fdy. Supply Mfg. Co.	43
M		Okonite Co.	*
Makepeace, C. R. & Co.	30	Osgood & Thompson	48
Marquette, John N.	5	Otis Bros. & Co.	43
Mason Regulator Co.	55	Otto Gas Engine Works	10
McIntosh, Seymour & Co.	4	P	
McLaughlin, Geo. G., Mfg. Co.	5	Page Belting Co.	42
McShane, H. & Co.	50	Palace Hotel	41
Mecklenburg Iron Works	2	Palmer, Cunningham & Co. (Lim.)	*
Medart Patent Pulley Co.	1	Pancost & Maule	50
Merchant & Co.	56	Penfield, J. W. & Son	41
Merry, G. F., Gen. West. P. Agent	31	Pennsylvania Steel Co.	22
Illinois Central Railroad	31	Phenix Iron Works	40
Metal Wheel Co.	45	Phosphor-Bronze Smtg. Co., (Lim.)	44
Meyers, Fred. J., Mfg. Co.	45	Piedmont Air Line	51
Milburn Gin & Machine Co.	*	Pierce, Butler & Pierce Mfg. Co.	53
Millers Falls Co.	38	Pneumatic Pulverizer Co.	40
Milner & Kettig	23	Poole & Hunt	55
Minnigerode & Ellerbe	22	Powell, A. C. & Son	35
Montague & Co.	22	Powell, Wm., Co.	50
Moosaw, R. C.	30	Post & Co.	35
Morris Machine Works	41	Preble Machine Works Co.	41
Morse, Williams & Co.	1	Prentiss Tool & Supply Co.	31
"M. R."	42	Pulsometer Steam Pump Co.	54
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Murray, Jas. & Son	44	Q. C. Novelty Supply Co.	*
N		Queen City Pattern Works	50
National Pulley Covering Co.	33	Queen City Printing Ink Co.	41
New York Belting & Packing Co.	3	Queen & Crescent Route	31
New York Central Iron Works	56	Quincy Metal Wheel Co.	46
New York Equipment Co.	31	R	
New York Stamping Co.	47	Radcliff, Rowe & Co.	35
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Nicholson File Co.	*	Record Printing House	49
Nicholson & Waterman	*	Rees & Camfield	31
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O		Remington Machine Co.	53
Obenmeyer, S., Fdy. Supply Mfg. Co.	43	Rice & Whitacre Mfg. Co.	41
Okonite Co.	*	Richey, H.	48
Osgood & Thompson	48	Richmond Check Rower Co.	*
Otis Bros. & Co.	43	Richmond Locomotive & Machine Works	22
Otto Gas Engine Works	10	Richmond Machine Works	50
P		Riley & Gray	9
Page Belting Co.	42	Robinson, Wm. C. & Son	52
Palace Hotel	41	Rochester Machine Tool Works	52
Palmer, Cunningham & Co. (Lim.)	*	Rockwood, Newcomb & Co.	50
Pancost & Maule	50	Rogers, C. B. & Co.	8
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Pennsylvania Steel Co.	22	Rome Foundry & Machine Works	32
Phenix Iron Works	40	Rome Land Co.	16
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Piedmont Air Line	51	Rowley & Hermance	7
Pierce, Butler & Pierce Mfg. Co.	53	Rumsey & Co., (Limited)	55
Pneumatic Pulverizer Co.	40	S	
Poole & Hunt	55	Salem Wire Nail Co.	45
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Powell, Wm., Co.	50	Santley, W. R. & Co.	*
Post & Co.	35	Saunders, D., Sons	23
Preble Machine Works Co.	41	Sawyer-Man Electric Co.	35
Prentiss Tool & Supply Co.	31	Schenck's Adjustable Fire Back Co.	41
Pulsometer Steam Pump Co.	54	Schieren, Chas. A., & Co.	42
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R		T	
Radcliff, Rowe & Co.	35	Talladega Land & Improvement Co.	18
Raymond, C. W. & Co.	21	Tanite Co.	*
Record Printing House	49	Taper-Sleeve Pulley Works	50
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Reliance Gauge Co.	53	Taylor Mfg. Co.	4
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Richmond Check Rower Co.	*	Thompson, T. G.	42
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Richmond Machine Works	50	Tift, Geo. W. Sons & Co.	4
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Robinson, Wm. C. & Son	52	Tompkins, D. A., Co.	53
Rochester Machine Tool Works	52	Trevor & Co.	50
Rockwood, Newcomb & Co.	50	Tuskaloosa Coal, Iron & Land Co.	39
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Rogers, H. A.	3	U. States Gutta Percha Paint Co.	*
Rome Foundry & Machine Works	32	Universal Radial Drill Co.	56
Rome Land Co.	16	V	
Rouse, R. R.	*	Valley Iron Works	4
Rowley & Hermance	7	Valley Machine Co.	54
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Salem Wire Nail Co.	45	Van Noorden, E. & Co.	49
San Antonio, Tex.	30	Van Wagener & Williams Co.	48
Santley, W. R. & Co.	*	Volker & Felthousen Mfg. Co.	54
Saunders, D., Sons	23	Vulcan Iron Works	50
Sawyer-Man Electric Co.	35	W	
Schenck's Adjustable Fire Back Co.	41	Walker Mfg. Co.	52
Schieren, Chas. A., & Co.	42	Walmsley, R.	9
Sebastian, May & Co.	23	Warfield Mfg. Co.	44
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Shepard Hardware Co.	*	Warren Chemical & Mfg. Co.	49
Shimer, Samuel J.	6	Washburn & Moen Mfg. Co.	10
Shultz Belting Co.	42	Waters, F. F., Mfg. Co.	10
Sigourney Tool Co.	33	Watson & Stillman	23
T		Webber, Wm. O.	30
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Taper-Sleeve Pulley Works	50	West Point, Va.	31
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Terry Mfg. Co.	45	Wiley, John & Sons	41
Thompson Mfg. Co.	49	Williams Engine Co.	5
Thompson, T. G.	42	Williamsport Machine Co.	7
Thorn Shingle & Ornament Co.	49	Willis & Schenck	*
Tift, Geo. W. Sons & Co.	4	Wiswell Electric Mfg. Mach'y Co.	40
Toland & Son	*	Women's Mutual Ins. & Accid't Co.	49
Tompkins, D. A., Co.	53	Wood, Samuel	9
Trevor & Co.	50	Wood & Co., Wm.	31
Tuskaloosa Coal, Iron & Land Co.	39	Worthington, Henry R.	10
U		Wrenn, Whitehurst & Co.	43
U. States Gutta Percha Paint Co.	*	Wright & Adams Co.	4
Universal Radial Drill Co.	56	Wyckoff, A. & Son	56
V		Y	
Valley Iron Works	4	York Mfg. Co.	10
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Van Dorn Iron Works	47	Advertisements marked * are inserted every other week, and do not appear in this issue.	
Van Duzen & Tift	48	ADVERTISE	

WOOD WORKING MACHINERY.



THE BENTEL & MARGEDANT CO. HAMILTON, O. U.S.A.

Stilwell's Patent HEATER AND FILTER

Lime
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Combined.

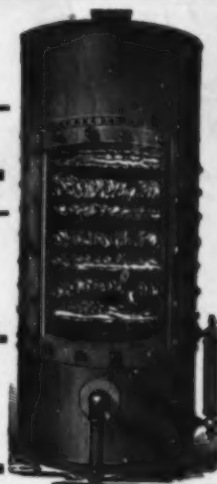
The Only Lime Extracting Heater That Will Prevent Scale in Steam Boilers.

Removing all impurities from the water before it enters the boiler.

Thoroughly Tested. Over 3,000 of Them in Daily Use.

This cut is a facsimile of the appearance of a No. 5 Heater at work on ordinary lime water, when the door was removed after the Heater had been running two weeks. Illustrated Catalogue Free.

STILWELL & BIERCE MFG. CO., DAYTON, O.



Keep Your Belts From Slipping

And save your power
by using

FRICITION COVERING FOR PULLEYS.

Satisfaction Guaranteed.
Easily Applied.
No Rivets. Effective.

National Pulley Covering Co.

BALTIMORE, MD.

The FREELAND DOUBLETREE and SINGLETREE REGULATOR.

[United States and European Patents granted December 6, 1887.]

We ask a careful examination of the "Freeland Doubletree and Singletree Regulator," upon which patents have just been issued. We claim it to be one of the most valuable, durable and cheap devices to which the attention of carriage manufacturers has been called. It is simple in construction and can readily be applied to Light and Heavy Single and Double Wagons, Sleighs, Mowers, Reapers, etc. For Double Carriages its use renders stay-straps unnecessary, holds the doubletree firmly in position, prevents rolling and rocking, at the same time relieving the bolt of strain, thus rendering it less liable to break. Should the bolt in doubletree break, this device holds doubletree firmly in place, thereby preventing accident. Should singletree break or trace

unhook, the regulator controls action of doubletree, thereby preventing neck yoke from leaving the pole. For single carriages, wagons or sleighs it holds the singletree firmly in position, preventing it from rolling or rocking, the same as in double carriages; the strain being taken off the bolt, dispensing with the use of stay straps. In the event of a trace unhooking the horse is prevented leaving the thills. For two-horse wagons extra heavy irons are made, with heavy clevis combined, and so constructed that by drawing the hammer the doubletree can easily be removed. The doubletrees are provided with clevis ready for use with chain, after removal. For Mowers and Reapers—it prevents the horses from being pulled back on cutting bars, and is of great assistance in



turning corners by removing strain from end of pole, thus preventing it from breaking. It possesses great advantages over ordinary fastenings in point of strength, utility, safety and cheapness. Manufacturers of wagons and agricultural implements who have seen the Regulator, agree with us as to its superior advantages, and consider it only a question of time when it shall come into general use. The irons can easily be applied to old as well as new work, either by farmer or mechanic. We feel confident all will agree with us that the Regulator is worth all it costs for either of the following reasons: 1st. It holds doubletree and singletree firmly in position—no rolling or rocking. 2d. By its use stay straps and chains are rendered unnecessary. 3d. It prevents accident by reason of stay strap breaking. 4th. It prevents accident in event of bolts breaking. 5th. It imparts elegance to appearance of carriages. 6th. The general utility of Regulator.

FREELAND & BRADLEY, Sole Manufacturers, Wellsville, Alleghany County, N. Y.

DEFIANCE PAINT WORKS, Cincinnati, O., Ready Mixed IRON ORE PAINTS, ASPHALTUM VARNISH, JAPAN DRYERS, PAINT OILS

THE Sigourney Tool Co.
HARTFORD, CONN.



One, Two and Three
**Spindle
DRILLS.**

Sensitive,
STRONG
—AND—
**Workmanship
UNEQUALLED.**

Special Machinery, Tools, Models, etc.
Built by Day or Contract.

The Dodge Patent Wood Split Pulley.

The Dodge patent wood split pulley, which we illustrate below, is not an untried invention, as it has already come into general use in the West and North. The fact that it is now being introduced into the South makes it important to give some explanation of the way it is constructed,



FIG. 1.

and the advantages which are claimed for it over the iron. The Dodge pulley is built of wooden segments, the face being made of poplar, carefully selected, thoroughly seasoned, then kiln dried and tempered. The rim is built up in a series of rings of segments which are glued with insoluble glue, nailed and doweled together.



FIG. 2.

This rim, after being turned, is cut in halves transversely; the spoke or hub bars are secured at their ends to the ends of the ring segments by means of a dovetail, as is shown in the figure. When completed the pulley is again turned perfectly true and smooth over the whole surface, and is in more perfect balance than is possible



FIG. 3.

for any iron pulley to be made. It is then filled with a hard electric filler, ground in oil and applied hot; the belt surface is coated with several coats of the best shellac varnish, and the body of the pulley is painted with two coats of fire and water-proof paint. By this protection it can be

run in any place where a leather belt would be used.

The advantages of the Dodge pulley begin with the fact that they are all split, thus avoiding the necessity of taking down the shafting whenever it is desired to put on an additional pulley, and yet its first cost is less than that of an iron solid pulley, and much less than that of the split iron one.

One of the greatest causes of annoyance to a manufacturer is the constant slipping of the belt, which will occur unless this is tightly laced, which, of course, involves a heavier strain on it, as well as greater wear on the bearings and more friction.

It has long been an acknowledged fact that wood holds a belt much better than iron, as is shown by the fact that it is a very usual thing to build up a wooden rim on a solid iron pulley. A belt can, therefore, be run much slacker on a wood pulley than on the iron, and yet get same grip and drive. The best authorities claim, it is said, that at least 33 per cent. more power can be transmitted by the wood pulley than by the iron with the same tension of belt.

The weight of a pulley adds very largely to the loss of power which to a certain extent is necessary. This waste is reduced to a minimum in the Dodge wood split pulley,

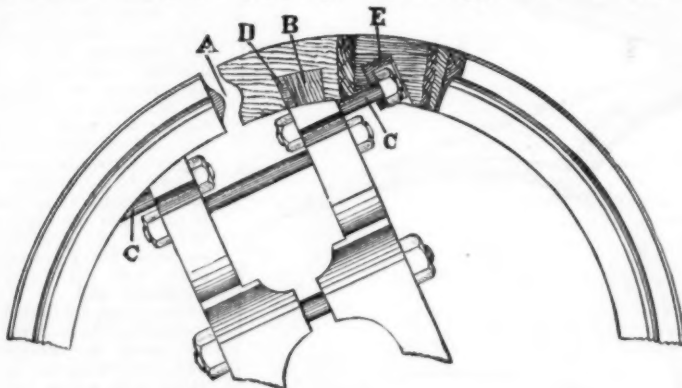


FIG. 4.

as it is 70 per cent. lighter than the same size iron pulley, and yet is equally, it is said, as strong as it; in fact, all these pulleys are made strong enough for a double belt.

Probably the most ingenious as well as important part of the Dodge patent is their bushing system. This consists of a simple method of bushing the pulley so that it may be utilized on shafts of different sizes. Each bushing is made of hardwood, thoroughly air-dried, then bored and kiln-dried; after this process it is counterbored

to the exact size of the shaft and carefully turned to fit the bore of the pulley. The bushing, like the pulley, is then cut transversely.

The pulley is compressed on the shaft with eight bolts, and experience has shown that the compression of wood on iron will hold stronger than steel set screws in any case, and on shafts above 2½ inches in diameter, stronger than keys ordinarily

The Monarch Spring Hinge.

Messrs. Van Waggoner & Williams, 20 Beekman street, New York, manufacturers of hardware specialties, have this season brought out some new goods, from which we select the Monarch spring hinge for illustration. This hinge is single acting and intended for screen doors, and attention is called to an excellent point in



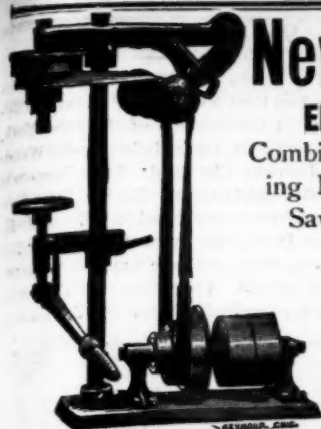
THE MONARCH SPRING HINGE.

what is called the hold-back feature, i. e., the door opens or closes itself, as desired, from a point at right angles with the wall or jam, the utility of which will be at once appreciated. The springs are made from the best steel, carefully tempered, while in appearance it is neat and ornamental. This firm manufactures a large line of useful specialties of particular interest to the hardware trade, of which they will be glad to send catalogue and circulars to those desiring them.

THE astonishing results that are being obtained at the Sheffield furnace in the making of pig iron cannot fail to be very gratifying to the stockholders and all who are financially interested in the success of the plant. To every friend of Sheffield it is an assurance that their confidence in her future importance has not been misplaced. It comes as a practical and substantial endorsement of the opinions of experts who have declared that no better point for the manufacture of pig iron existed in the United States than Sheffield. It will go a long way toward restoring that feeling of confidence which the delays occasioned in bringing about the present agreeable state of affairs has had much to do in settling, and it must create an interest in Sheffield that will eventually prove greatly to her benefit. If the Sheffield furnace has done so well there can be no question but that the three "Cole" furnaces and the Lady Ensley furnace will do as well in proportion. The effect will be wonderful, and the attention of iron makers and iron dealers will at once be directed to Sheffield as one of the greatest iron markets in the country. The one big thing about the large output is that it demonstrates in the most practical and convincing way that there is money in making iron here, and that will be magnet enough to attract to this center an array of capital and men who will take advantage of the opportunity that will be offered, and will crowd Sheffield to the front at a rate unprecedented in the history of the booming towns of this country.—Sheffield Enterprise.

STOVALL (formerly called Sassafraz Fork), on the Oxford & Clarksville Railroad, is a promising place. Four stores, one iron

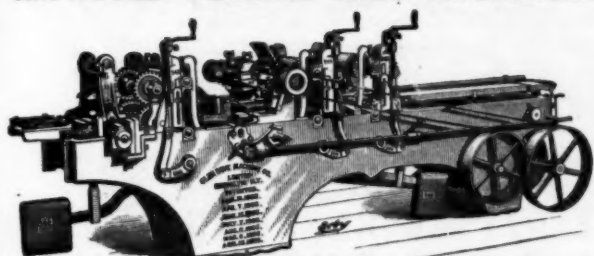
foundry, one saw mill, two churches and a dozen dwellings are already there. It is said to be a fine place for manufacturing tobacco or any line of wood-work, having an abundance of hardwoods and water power. It is free from malaria and in a high rolling country. 4½ hours from Richmond. Building lots for manufacturing or business purposes are offered free. Dr. A. C. Harris, Stovall P. O., Granville county, N. C., can give particulars.



New Bench Drills,
EMERY GRINDING MACHINES,
 Combined Sawing and Boring and Shaping Machine, Foot and Power Band Sawing Machines, Foot and Hand Power Circular Saws.

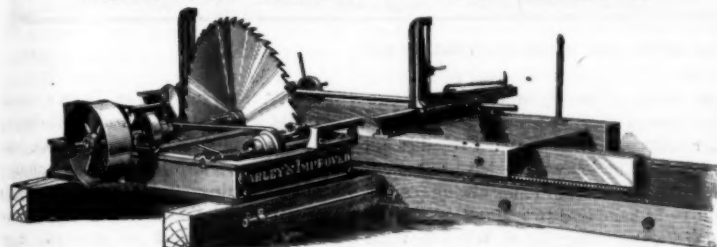
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 MANUFACTURERS,
 154 Lake Street, - CHICAGO, ILL.
 Write for Price Lists and Discounts.

Glen Cove Machine Co., Limited,
 —MANUFACTURERS OF—
IMPROVED PLANING MILL MACHINERY.



No. 1.—Fast-Feed Planing and Matching Machine. 13 feet 9 inches long. Weighs 8,700 pounds.
 Heavy Fast Feed Planing and Matching Machines, Double Surfacers, and Inside Molding Machines a Specialty.
 Office and Works, 24 to 30 CLAY ST., BROOKLYN, N. Y.

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CHEAPEST MILL For the Money In the Market.



PORTABLE MILL. PRICES, \$250 TO \$600.

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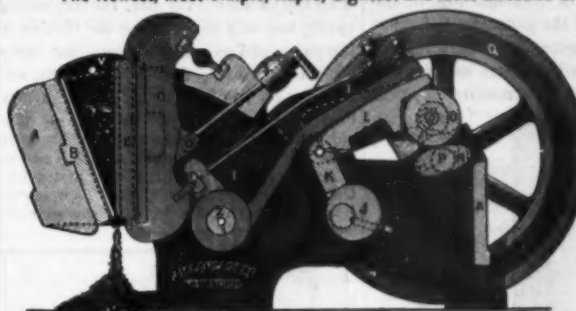


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BOSTON OFFICE:
 No. 33 Federal Street

The DYNAMO of this Company is AUTOMATIC in its regulation, and will maintain a UNIFORM LIGHT, with ALL or ANY PORTION of the lights in Circuit. Our LAMP will not FLICKER and will MAINTAIN its CANDLE POWER during its Guaranteed life.
 Plans and Estimates Furnished for all kinds of Incandescent Lightings.
 ESTIMATES FURNISHED FOR THE THOMPSON-HOUSTON SYSTEM OF ARC LIGHTING.

The "LANCASTER" ROCK BREAKER AND ORE CRUSHER,

The Newest, Most Simple, Rapid, Lightest and Most Effective Crusher Extant.



Adjustable while running to yield any uniform grade of product.
 Less power required and less liability to breakage, and less in first cost and in subsequent wear and tear, than any other machine for which such advantages are being either attempted or claimed.
 Competitive trials and tests solicited.
 The "LANCASTER" Crushers may be mounted on wheels, worked by hand, horse-gear, steam or other power, and also fitted with Rotary

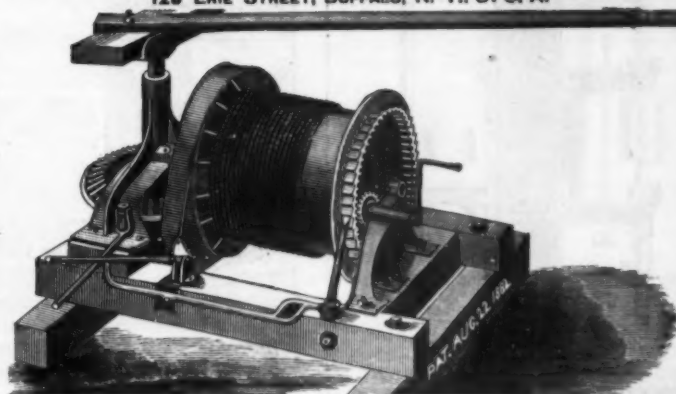
TYPENº1 LONGITUDINAL SECTION.

Screens, Elevators and Conveyors. Address

JAS. H. LANCASTER, 187 Broadway, New York,

Sole Maker of the "Lancaster" Hand and Power Coal Wedging and Coal Drilling Machines.

THE CONTRACTORS' PLANT MANFG. CO.
 129 ERIE STREET, BUFFALO, N. Y., U. S. A.



The illustration represents a Horse-Power Hoisting Whim. It is designed for mining purposes or raising coal or water out of a shaft. It will raise a bucket or weight weighing seven hundred pounds seventy-five feet per minute. The machine is made entirely of iron and steel excepting the shaft, and is not affected by dry or wet climates. The hoisting drum is under complete control of the man at the shaft, landing the bucket by operating the levers at hand, and by which means the drum can be thrown in and out of gear at will when the horse is in motion, or the bucket lowered by the brakes as safely and conveniently as by a steam power hoist. No clutches to throw out or in gear. The drum will carry 500 feet or more of 3/4 steel wire rope. The machine is **SMALL, LIGHT, EASILY HANDLED** and **DURABLE**, sufficiently strong to do the desired work, and so perfectly simple that it can be readily understood by any minor or person inexperienced with machinery. There is a safety attachment on the end of drum in case of an accident, the dog always being in gear when the bucket is being raised. Easily transported; can be made in sections small enough for mule-back transportation if desired.

We Also Manufacture Horse-Power Hoist for Railway Contractors, Bridge Builders and Quarrymen.

Correspondence Solicited. Illustrated Catalogue furnished on application. Mention this paper when you write.

A. HOEN & CO.

LITHOGRAPHERS, BALTIMORE MD.

Our facilities for the production of

ARTISTIC

Color Work

AND ALL STYLES OF

Fine Commercial Engraving

Are Unsurpassed.

All work executed under careful and personal supervision at prices consistent with first-class productions. Sole proprietors of the

CELEBRATED

LITHOCAUSTIC PROCESS

Branch Establishment: Room Building, RICHMOND, VA.

ESTABLISHED 1836.



Laundry Machinery.

Largest Stock. Latest Improvements. Fullest Line.



Washing Machines,
Ironing Machines,
Centrifugal Machines,
Mangles, Wringers, etc.
BOILERS AND ENGINES.

—OUTFITS FOR—
Hotels and Public Institutions

—A SPECIALTY.—

The A. M. DOLPH CO.

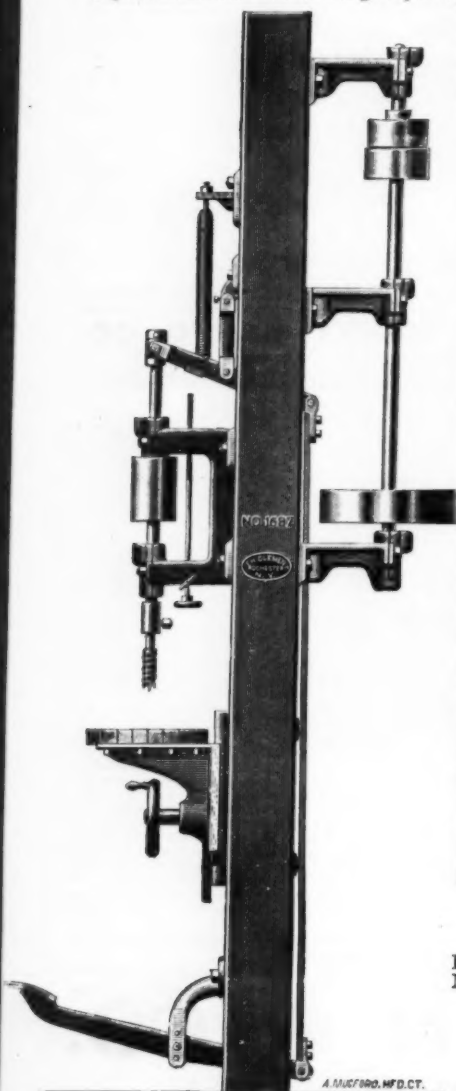
224 Washington Street, CHICAGO, ILL.

Cor. 9th St. and Freeman Ave. CINCINNATI, O.

To Secure **SOUTHERN TRADE**
 ADVERTISE IN THE
MANUFACTURERS' RECORD

Improved No. 2 Vertical Boring Machine.

The large sale of this machine in the past few years and the general satisfaction it has given have induced the manufacturer to remodel the patterns and add several improvements without increasing the price.



NO. 2 VERTICAL BORING MACHINE.

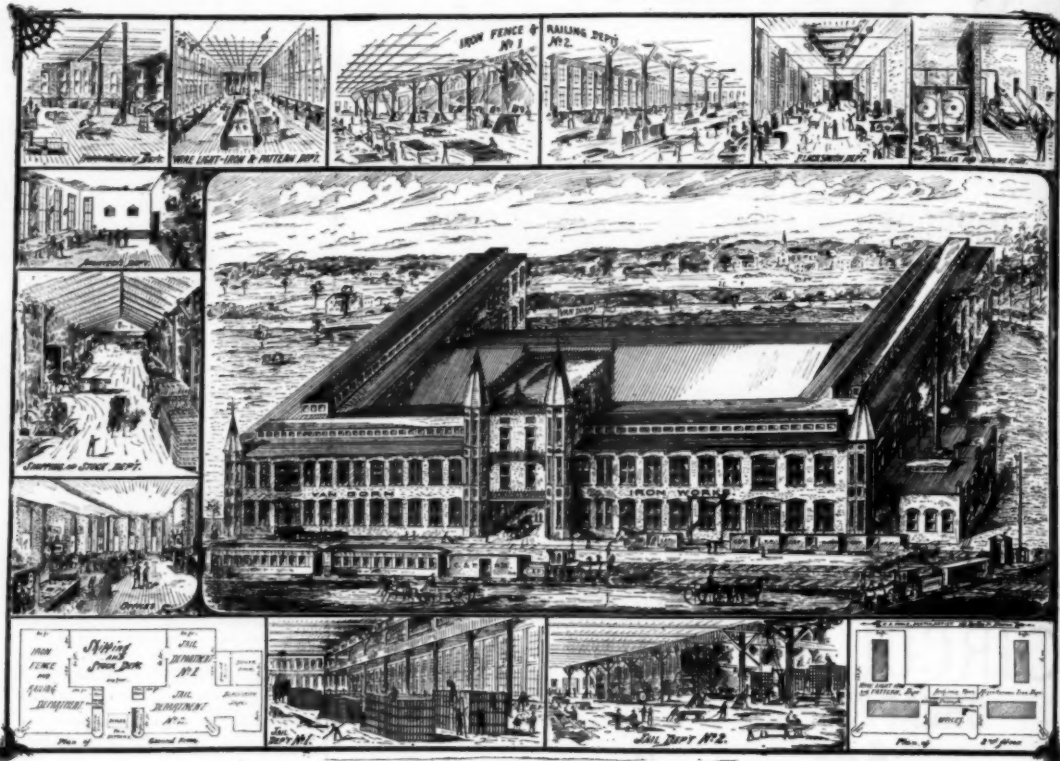
The spindle is of steel and has hard bronze friction collars for the lever sleeve. The boxes in which it moves are longer than the entire vertical movement, so that

The advantages of the method of balancing the spindle and pulley by means of the heavy bar connecting the foot lever with the balance lever are, the retracting spring has only to overcome the friction of the parts, and as a consequence the labor on the operator's foot is very light, and the motion can be very quick, thereby increasing the capacity of the machine considerably. For these reasons and the care used in fitting the parts, as well as the general convenience of the adjustments, the manufacturer claims that this machine has no equal of its kind in the market.

more frequent oiling. The under cutter heads run in a solid frame or casting and are always in line. They are raised or lowered to change depth of cut by raising or lowering one side of this frame by the use of one screw, and is very easily and quickly done. The front end of the planer with the two guides is swung out of the way by removing a single bolt. The under pressure bar or plate that is set level with the cut of the under cylinder is attached to this swinging part, so that when it is swung out of the way, leaves

Van Dorn Iron Works.

The works herewith illustrated are located on the Cleveland & Pittsburgh Railroad, at the junction of the New York, Chicago & St. Louis Railway, near Woodland avenue, Cleveland. The salesroom is at 102 Euclid avenue. The Van Dorn Iron Works were established in 1873 by J. H. Van Dorn, the present proprietor, at Akron, Ohio, and were removed to Cleveland in 1873. The products of the works number hundreds of articles. The leading



VAN DORN IRON WORKS, CLEVELAND, OHIO.

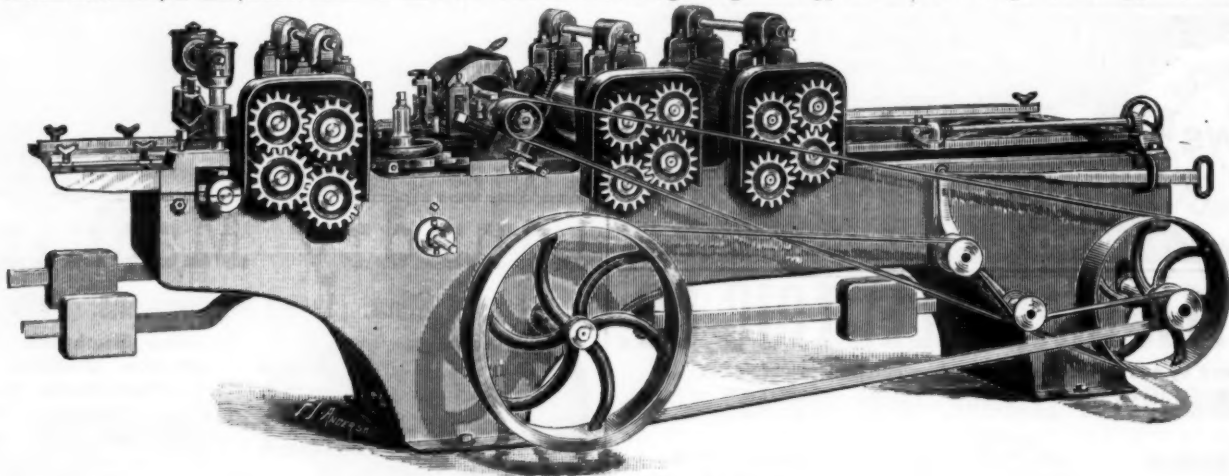
F. H. Clement, 215 Mill street, Rochester, N. Y., is the manufacturer.

No. 18 12-inch Planer and Matcher.

This planer is built on the plan and style of Messrs. Frank & Co's No. 17, only varying in its size. It is 12 feet 6 inches long; will plane, tongue and groove 12 inches wide and 3 inches thick. It has 6 feed rolls 7 inches

the front of the cylinder bare for convenience of sharpening and setting cylinder cutters. Both matcher-spindles are adjustable by screws, the left-hand one to regulate the width of lumber being planed; the right-hand one to change the position of the lumber being planed. When the right-hand end of the cutters are dulled, the right hand guide and matcher spindle are easily moved to the left, where the cutter is sharp, and admits of using the whole cutter before grinding. The upper rolls are raised

specialty, however, is Van Dorn's patent wrought iron fence, designed for enclosing residences, public buildings, parks, etc. Specialties are also made of the manufacture of crestings, railings and terminals for roof decorations. These goods are made of either cast or wrought iron. Elegant stable fixtures of cast or wrought iron or brass are also turned out here. Another specialty is the making of lawn furnishings. The list of products also embraces automatic carriage and wagon gates, hitching posts, tree guards, shutters



NO. 18 12-INCH PLANER AND MATCHER.

he wear is very even and is reduced to the lowest possible point.

The table bracket has a screw adjustment, and there is ample provision for taking up the wear.

The depth gauge or stop is threaded for adjustment, and is made fast with a set screw, and between the gauge and the work there is only one joint, so there is little, if any, lost motion on the bit.

in diameter, all heavily geared; upper rolls weighted. The cutter heads are made of forged steel, and have 1 1/2-inch journals running in bearings 9 inches long. The matcher-spindles are made from the best machinery steel, 1 1/2 inches, and run in our patent self-oiling steps, which will not heat if oiled once in from one to two months. The upper bearing has an oil cup to hold oil and waste, but requires

and lowered by the same device as in No. 17. There is a spring to hold lumber against the guide when being fed into the machine, which is easily adjusted by a screw and hand wheel while the lumber is being run. The speeds of feed, unless otherwise directed, are 40, 60 and 73 feet per minute. The feed is started and stopped by use of two tightening pulleys running on each side of the belt, and is quickly operated. Messrs. Frank & Co., Buffalo, N. Y., are the manufacturers.

fire escapes, stairs, steel and iron jails, and structural iron work. The works have an extended reputation for their products in the way of station house cages, which can be shipped and put up in any ordinary room, making a safe and secure prison at a low cost. Many lockups and jails have been fitted up with these cages and with cells from these works. Illustrated catalogues representing the above specialties will be sent on application by addressing Van Dorn Iron Works, Cleveland, Ohio

This is an Anniston Page.

Anniston has 10,000 inhabitants.

Anniston has no "boom." Its growth has been solid and steady, free from inflation, but wonderfully rapid because while it is the "Model City of the South," it is likewise the most remarkable city of the South. The wonderful prosperity of its great manufacturing enterprises has been the cause of this rapid growth.

Hon. Wm D. Kelley, ("Pig Iron Kelley" as he is familiarly known), the great Pennsylvania statesman, calls Anniston "A Romance of the New South," and predicts that it will be the center of the steel and iron interests of the South.

Anniston is building houses almost without number. They are going up everywhere, and yet the demand exceeds the supply.

Anniston is building the most extensive car works in America; to cost \$1,000,000, to turn out 20 to 25 complete cars a day and to employ 1,000 hands. These works manufacture everything used in building a car, except the tin for the roof and the nails.

The great iron center of the United States will undoubtedly be Alabama. This is the prediction of such experts as Sir Lowthian Bell, of England; Hon. Abram S. Hewitt of New York; Col. A. K. McClure, of Philadelphia, and others equally as distinguished. Anniston will be the iron center of Alabama, and hence the iron center of America.

Anniston is surrounded by the most marvelous mineral wealth of the South, by vast forests of timber, and by a magnificent farming country.

There are already more than a dozen furnaces in the Anniston iron district, and a number of others are under construction. Anniston's furnaces are the most profitable in America. They have never had to go out of blast during dull times. Steadily, through all the years of depression since 1873, they kept in full operation, yielding large profits.

The richest ore properties in Alabama are owned by Anniston capitalists, and furnish ore to Anniston's furnaces.

Anniston has three banks, splendid schools, fine churches, well-paved streets, a handsome opera house, the finest hotel in Alabama, built at a cost of \$300,000, street car line, two daily papers, and many great manufacturing enterprises, including furnaces, rolling mill, car works, car wheel and axle works, machine shops and foundries, boiler works, agricultural implement factory, steel bloomery, cotton mill, water works, electric light works, brick and fire brick works, &c., &c.

Anniston is building two coke iron furnaces at a cost of \$500,000, which will turn out 300 tons of pig iron a day.

Anniston is building the largest iron pipe works in the world, to employ 900 hands, and to turn out 200 tons of gas and water pipe a day.

Anniston is building an electric street car line to be run by electric motors.

No better climate can be found in America than Anniston's. Delightfully warm and sunny in winter and cool with never-falling breezes in summer. For lung and throat troubles it is unsurpassed. No malaria.

There are profitable openings in Anniston for every line of industry and trade, including rolling mills, machine shops, boiler works, foundries, furnaces, cotton mills, woolen mills, furniture factories, spoke and handle factories, tanneries, shoe factories, wire nail factories, sash and door factories, saw mills, fertilizer factories, wholesale dry goods, grocery and hardware houses, &c.

Anniston has three banks, but there is a splendid opening here for another with business enough for all.

Anniston has four railroads (two being leading trunk lines), and a number of others will soon be constructed to this point.

Anniston has a steel bloomery in successful operation, and the first steel ever made in Alabama of Alabama ore was made in this town.

The "Inn" is the wonder and admiration of visitors. It is one of the most complete and perfect hotels in America.

We have been shown by Mr. J. L. Morrison, Jr., a specimen of the mild steel he and his associates are producing at the Anniston (Ala.) bloomery. The material has the appearance of the toughest puddled steel, and in manipulation is said to resemble the best refined Swedish iron. Tests show that it meets the high requirements of the government engineers for boiler plate. The material used in producing this fine iron is high grade charcoal pig iron smelted from the choice brown hematite ores of Alabama. We cannot see why this iron will not take the place of the dearer soft iron plates of Pennsylvania, and eventually become a formidable competitor with the highest grades of Siemens steel.—Chattanooga Times.

Anniston is to-day the most inviting point in America for investments in new industrial enterprises, in building dwellings and stores, and in real estate.

Why remain in a city or town which has reached its limit of growth, where there is no chance for making money, where bad climate causes constant sickness, when Anniston offers you an unsurpassed climate winter and summer, bright bracing and health giving, the purest of water, magnificent scenery; in fact, a perfect spot for a home, and an abundance of openings for business enterprises of all kinds, where an absolute certainty of great and rapid growth assures prosperity to all?

All of Anniston's great enterprises, her furnaces, her car-works, car-wheel works, railroads, &c., have been developed, and these immense mineral and timber properties, aggregating about 100,000 acres, purchased without incurring any debts or issuing any bonds. In fact, as Mr. Samuel Noble, the general manager of the Woodstock Iron Co., lately stated, "we have paid cash for all these industrial enterprises, these lands and these railroads; have cash in bank to build and run all the new enterprises under construction; pay our workmen in cash every week; have not issued a note or a bond; there is not a piece of debt bearing paper in existence with our endorsement; we do not even discount the notes received in payment for our iron, and if every bank in the United States were to fail not a piece of paper with our signature on it would be returned to us." Can the industrial history of the world furnish a parallel to this marvelous attestation of Southern progress, as typified in Anniston?

Anniston is literally built on iron ore, and in cutting streets through the hillsides large masses of fine ore are taken out and sent to the furnaces. Within the city limits there is a great hill, almost a mountain side of iron, from which the Woodstock Company have been digging ore since 1873, and yet they have scarcely leveled down more than 7 or 8 acres. There is no delving into the bowels of the earth to bring up ore by expensive machinery. It is only necessary to dig it out of the hillside and dump it into the carts. From this ore is made the celebrated Woodstock iron, which has such a wide reputation. From Anniston's furnaces it goes to Anniston's car-wheel and car-axle works, machine shops and foundries. It is made into car-wheels and axles that have a national reputation. Home consumption of Southern raw materials is here aptly illustrated.

Controlling the great Cahaba coal and coke property of 40,000 acres, admittedly the finest steam and coking coal in the South, Anniston is, in this respect, vastly ahead of any other place in Alabama, while in the matter of iron ores the advantage is all on the side of the Anniston district—in the abundance and excellence of its ores, being lower in silica and phosphorus and richer in iron, requiring less limestone and less coke to make a ton of iron, and producing iron of superior quality for all purposes.

Anniston possesses natural advantages as a manufacturing and business point surpassing those of any other place in the South. The neighboring mountains possess exhaustless supplies of ore easily and cheaply mined. Iron can be made at a lower cost than at any other point in the South, making no exception. For miles around there is a magnificent sweep of heavily timbered lands. From the surrounding forests the finest Georgia pine and hard-wood lumber are furnished. Anniston is a competitive railroad point, and commands favorable freight rates to all markets. Thus, for manufacturing, the raw material is cheap, easily accessible and of the best kind, and there is every facility for cheaply transporting the product to market.

For any kind of general business, Anniston is an inviting field. Tributary to the city, north and south on the East Tennessee, Virginia & Georgia Railroad, east and west on the Georgia Pacific Railroad, for 50 miles south on the Anniston and Atlantic Railroad, and north on the Anniston & Cincinnati Railroad, is the richest and most populous agricultural country in the South, which, with the competitive freight rates that are, by location, the right of the city, gives to Anniston as a distributing point for wholesale and jobbing houses a most favorable location. A number of wholesale grocery and commission houses are doing a large and profitable business, and daily increasing the volume of trade and extending their territory.

Anniston has one wholesale grocery and commission house, whose business will aggregate nearly \$1,000,000 this year.

It is in the Anniston district where nature's resources are greatest, where nature's capital in rich agricultural lands, and where iron, coal and other useful minerals are most abundant, most accessible and of superior quality for all purposes, that capital will find its safest investment, largest returns and labor reap its richest reward.

The best, healthiest and most invigorating climate in the world, with mountain air and the purest sparkling water, and an elevation of 900 feet above tide water, insuring the health and comfort of all, are found in Anniston.

Liberal inducements are offered to manufacturers to locate in Anniston.

The iron ores tributary to Anniston are the best in the South. From them is produced the highest grade of iron and steel. The car axles made in Anniston of Anniston iron will bend double when cold without showing a crack or a flaw.

Pig iron can be made in Anniston at a lower cost than at any other point in Alabama, without a solitary exception, and the wonderful financial record of the four furnaces owned by the Woodstock and Clifton companies prove the correctness of this statement.

Moreover, Anniston, while making iron at the lowest cost, makes the best iron produced in the South. The president of the United States Rolling Stock Co., of New York, which is now investing \$1,000,000 in a gigantic car plant here, says that "Anniston iron is the best he ever saw."

The immense 90-inch Morse cotton compress, with its great warehouses is aiding in making this a leading cotton market. It is estimated that the receipts here during the coming season will be at least 40,000 to 50,000 bales, and possibly 60,000 bales.

The furnaces, car works, pipe works etc., and other new enterprises now under construction, and all of which will be completed and in full operation in a few months, will require 4,000 new workmen thus adding 12,000 or more to the population of the town. These concerns will turn out about \$300,000 worth of work a week. This will all go into circulation in Anniston.

The Coming City of Alabama

[Atlanta Constitution, April 8.]

Mr. Albert Howell says: "Anniston is the coming city. I was there last week, and found three enterprises that are actually investing \$3,000,000 in buildings and plants. These are the pipe works, the United States Car Works, and two new furnaces. You cannot conceive the bustle and business of that wonderful city. These three corporations will add five to ten thousand population to Anniston."

"What is its population at present?"

"That is hard to say. I should guess eight or ten thousand, but there is immediate need for two thousand houses in Anniston. The real estate agents there say that number would be rented before they were finished at good prices. If there were houses enough the population would increase 5,000 in a week. There are literally hundreds of men—mechanics, merchants, clerks and professional men—who are living in Anniston and working there, but who cannot bring their families because they cannot rent a house. Houses are being built as rapidly as possible, but the city has outgrown itself, and two thousand residences, if they were started at once, would be rented before completion. The other cities may blow and bluster, but Anniston is building, and in ten years will be the best city in Alabama. You mark this prediction."

Any desired information not found in this page advertisement can be obtained by writing to the Anniston City Land Co., Anniston, Ala.

ATHENS, East Tennessee,

THE COMING

→ Iron and Manufacturing City of the South. ←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is **ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES**. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. **FINE MINERAL SPRINGS** are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The **EDUCATIONAL FACILITIES** are good. Beside public and preparatory schools, Athens is the seat of **THE GRANT MEMORIAL UNIVERSITY**, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000. **THE ATHENS WOOLEN MILLS, \$100,000**

THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.

FOUNDRY & MACHINE SHOPS, \$25,000.

FURNITURE WORKS, \$15,000.

FLOURING MILLS, \$20,000, etc.

500 men are now at work on the new railroad from Athens to the

RICHEST IRON FIELDS IN THE SOUTH.

JUST EAST OF THE TOWN.

Only eight miles from Athens are **VEINS OF RED FOSSILIFEROUS ORE 11½ FEET THICK**, and 4 to 12 miles beyond are **THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH**. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athens **UNSURPASSED SHIPPING FACILITIES**. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

Largest Colored Slate Deposits in the United States.

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Slate.

The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

\$500,000 IN NEW MANUFACTURING ENTERPRISES

At Athens, including a 100-ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

The Athens Mining & Manufacturing Company,

R. L. BRIGHT, President

R. J. FISHER, Secy. and Genl. Manager.

Tuskaloosa, Ala.

* ALABAMA'S NATURAL PITTSBURGH. *

A Railroad and River Town of 6,000 Inhabitants, in the Coal, Iron and Timber District.

— DIPLOMAS FOR —

The Best Furnace Coke and the Best Blacksmith Coal

WERE AWARDED THIS CITY OVER ALL AND MANY COMPETITORS AT THE GREAT PIEDMONT EXPOSITION.

HEALTHFUL LOCATION. SALUBRIOUS CLIMATE. SCHOOL FACILITIES UNEQUALED BY ANY OTHER TOWN IN THE SOUTH.

"EXAMINE THE MAP."

— SITUATED ON —

Queen & Crescent

— TRUNK LINE, —

IN THE

Warrior Coal Field

AND ON THE

WARRIOR RIVER.

Only Navigable River touching the

Alabama Mineral Field.

Eight Months Navigation. Being Surveyed
now to be opened all the year round.

All Water Navigation to

❖ **MOBILE** ❖

AND THE

Entire Gulf and Atlantic Coasts.

THE

Tuskaloosa Northern Railroad

Is now under construction into the

MINERAL and TIMBER FIELDS.

— THE —

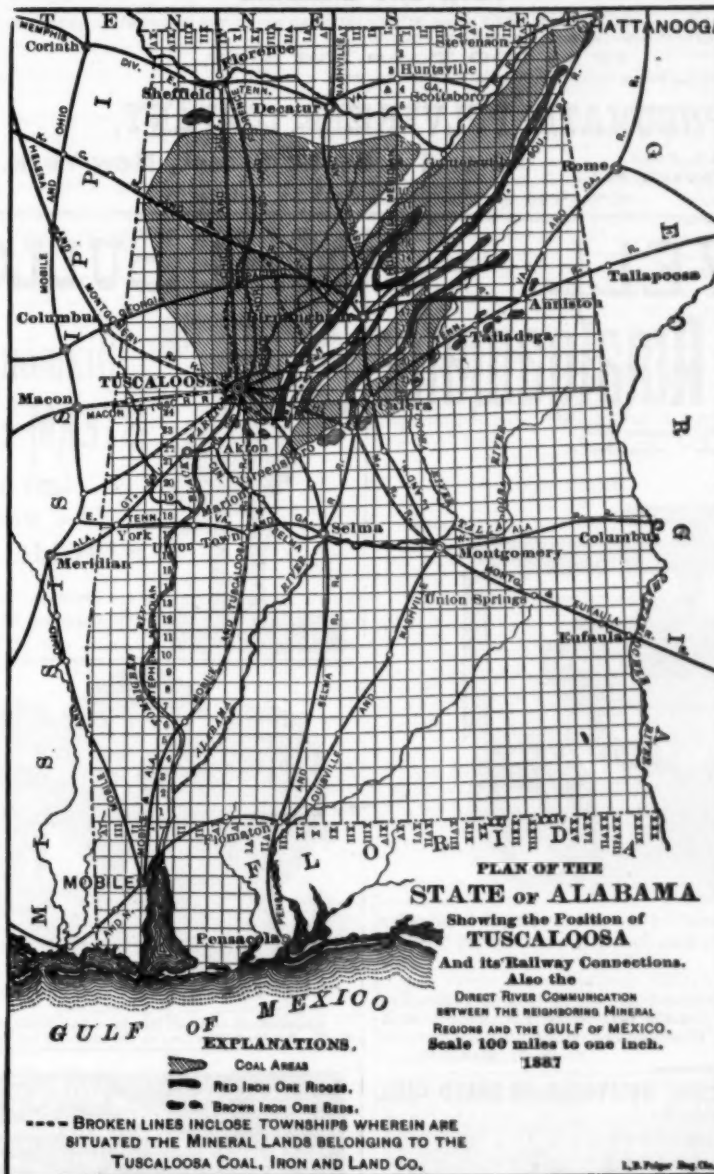
Macon & Tuskaloosa Railroad

Will soon be building into the

COTTON REGION OF MISSISSIPPI.

Fine Farming Region

Around and Below the City.



Superior Inducements

AND

+ ADVANTAGES +

TO ALL

Manufactories Consuming

**WOOD,
IRON,
COTTON.**

FINE COOKING COAL

In workable veins near city, fully tested.

◀ The Fire Clay ▶

Existing in inexhaustible quantities, has been
practically tested and pronounced

The Best yet Discovered in the South.

The Tuskaloosa Belt Railway

NOW IN OPERATION.

◀ THE TUSKALOOSA WATER WORKS ▶

NOW BUILDING.

COTTON MILL

In Successful Operation.

ALSO

LARGE BRICK WORKS

COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here

❖ **THE GOLDEN OPPORTUNITY.** ❖

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

• **ROOM FOR ALL** •

THE **Tuskaloosa Coal, Iron & Land Co.,**

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers
to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims.

An illustrated descriptive pamphlet sent free upon application to

W. C. JEMISON, President Tuskaloosa Coal, Iron & Land Co., **TUSKALOOSA, ALA.**

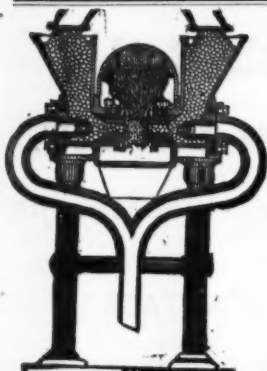


Stedman's Improved Disintegrator and Pulverizer.

This Mill will disintegrate or pulverize materials of all kinds, for brick and tile, for cement and fire brick, and slag from open air furnaces for use in rolling mills, and materials for foundry facings, iron ores, animal matter in almost all conditions,—in fact almost any material that can be disintegrated. It is an improvement over any yet made and the result of practical experience.

Send for Descriptive Circular.

STEDMAN'S
Foundry & Machine Works,
AURORA, IND.



Sectional View of Pulverizer.

PNEUMATIC PULVERIZER.

The principle of pulverization consists in the employment of

TWO POWERFUL OPPOSING CURRENTS

of dry super-heated steam, so arranged that they continuously charge themselves with crushed or granulated material, and by the great force and velocity of the steam currents the minerals are dashed against each other with such power of concussion as to cause the hardest ores to be pulverized to any degree of fineness desired. The high temperature of the super-heated steam currents employed, through which every minute particle of ore must pass, causes them to become very hot and dry, which produces a beneficial effect upon sulphurets and ores containing rusty gold. The light weight and simplicity of construction of the Pulverizer, the extremely small and inexpensive wearing parts are the WONDER and SURPRISE of all who witness its operation. The Company are prepared to furnish complete plants for pulverizing

10 to 200 Tons Per Day,

including a Sectional Steam Boiler supplying all the power required.

PNEUMATIC PULVERIZER COMPANY,

L. F. HOLMAN, Pres.

F. A. LUCKENBACH, Supt.

2 and 4 Stone Street, New York.

WRITE FOR PARTICULARS.

THE GREATEST
ROCK BREAKER
ON
EARTH
CAPACITY ONE TON
ONE MINUTE
GATES IRON WORKS
50-58 CLINTON ST. CHICAGO

Roller & Detachable Chain Bolting



Detachable in every Link

FOR IMPROVED

ELEVATORS,
Conveyers,

AND
DRIVING BELTS

FOR HANDLING

Coal, Ores, Grain,
CLAY, BRICK, &c.

ADDRESS

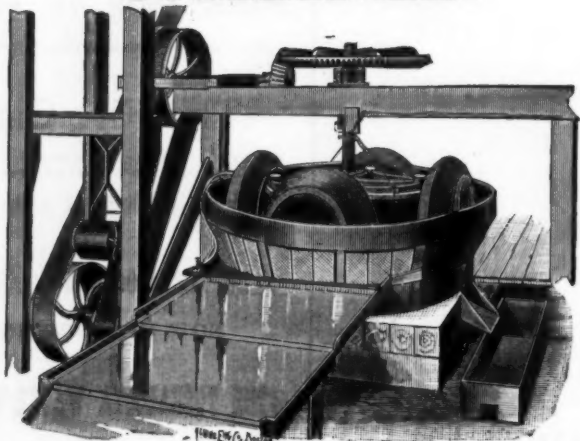
The JEFFREY MFG. CO.

121 W. STATE ST.,

Columbus, Ohio.

Also Manufacturers of the
Large Coal Mining Machine
and Rotary Power Coal Drill.
Send for Illustrated Catalogue.

WISWELL Ore Pulverizer AND Amalgamator COMBINED.



The following testimonial from Mr. Marsden, of the firm of Farrel & Marsden, manufacturers of Stone Breakers and Ore Crushers, Ansonia, Conn., speaks volumes for the Wiswell Mill:

Wiswell Electric Mining Machinery Co.:

GENTLEMEN—After carefully inspecting your mill and seeing it in operation, I do not hesitate to say that it is one of the best, if not the best pulverizer and most complete gold saving machine I have ever seen. Please accept congratulations for your success.

S. L. MARSDEN.

WE FURNISH A COMPLETE MILL FOR \$2,500, DELIVERED ON BOARD CARS.

FOR FURTHER INFORMATION ADDRESS

Wiswell Electric Mining Machinery Co.

4 POSTOFFICE SQUARE,

A. A. REEVE, Treasurer.

BOSTON, MASS.

Sullivan Diamond Core Drills

OTTUMWA HOISTING AND HAULING ENGINES

A full line of machinery carried in stock. Contractors for Diamond Drill Prospecting. Send for catalogue and prices.

DIAMOND PROSPECTING CO.

74 & 76 W. Lake Street, Chicago, Ill.

Eastern Office, 18 Broadway, New York.



M. C. BULLOCK MFG. CO.

MANUFACTURERS OF

Diamond Pointed Rock Drills,
STEAM ENGINES and **BOILERS**,

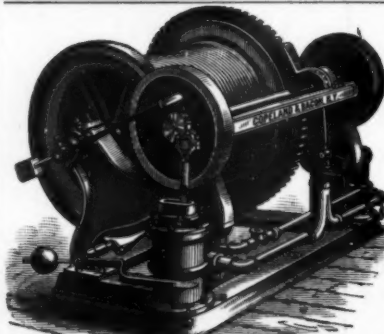
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FOR MINES, BLAST FURNACES, DOCKS, ETC.

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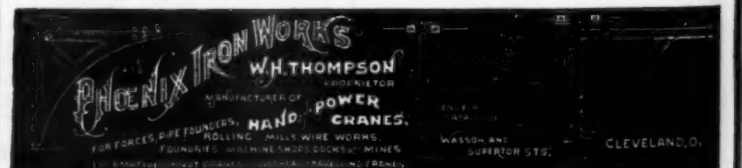
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Works and Dredging Machinery
Furnished Complete.

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535 Arch Street, PHILADELPHIA.

REFERENCES:—Croton Magnetic Iron Mines, Brewster's, N. Y. Crown Point Iron Co., Crown Point, N. Y. Belvidere Iron Co., 32 Broadway, New York. Sea Island Chemical Co., Beaufort, S. C.



Webster, Camp & Lane Machine Co.

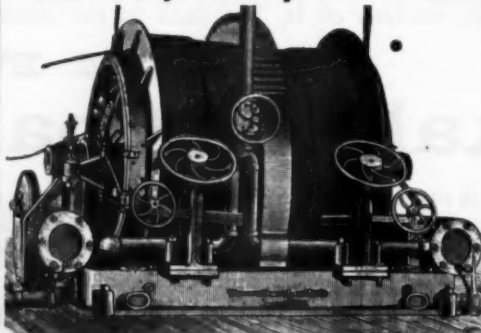
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Endless and Tail Rope
Haulage Engines for

COAL MINES.

Automatic and Slide Valve
Steam Engines, Boilers,
Pumping Plants, Cages,
Ore Cars, Sheaves, etc.

AKRON, O.



TRADE NOTES.

The Cleveland Twist Drill Co., of Cleveland, O., write us as follows: "We have never had so much to do as during the past four months, being compelled to run day and night to fill our orders."

The report of the commissioners relative to the insulated electric wires on the U. S. steamship "Atlanta," was extremely favorable to the Okonite Co., N. Y., the well-known manufacturers of telegraph and telephone wires.

The Hughes Steam Pump Co., Cleveland, Ohio, are having many inquiries from the South about their celebrated steam pumps. A number of these pumps have been sold recently in that section, and the demand for them is steadily increasing.

ROWLEY & HERMAN, Williamsport, Pa., report a large business in wood-working machinery. So great indeed is the demand for their machinery, that they have had work to keep up a full stock and fill orders promptly. Their success is well-merited.

The Valley Machine Co., of Williamsport, Pa., are building a number of fine engines for use in electric light plants. They are especially popular for this difficult duty, as well as for any other hard service where close regulation is required.

Those interested in where to buy to advantage pipe-threading machines, tapping and drilling machines, hand stocks and dies, taps, reamers, tongs, pipe vises, etc., would do well to send to D. Saunders' Sons, Yonkers, N. Y., for a catalogue for such goods. This concern has recently issued a 50-page illustrated catalogue fully describing their specialties, which they will send to dealers and others upon application.

MESSRS. E. C. STEARNS & Co., of Syracuse, N. Y., report a very gratifying increase in their export trade during the past four months, and mention that the outlook for the balance of the year is very favorable. Among others they mention recent shipments of the celebrated "silent" saw vises, wood clamps, &c., to Glasgow; bench drills to Northampton, Eng., and Aspinwall, Panama, and to the United States of Colombia.

MERCHANT & Co., Philadelphia, Pa., manufacturers of "Gilbertson's Old Method" and "Camaret" brands of roofing plates, have lately issued the third edition of their book entitled "Important to All Interested in Good Roofs." This book contains much information in regard to what constitutes good material for roofing; how to lay, paint and solder same, and a careful examination of it will give the reader all the points necessary to enable him to select material for a substantial roof.

The Ball Engine Co., of Erie, Pa., have opened an Eastern office at room 62, No. 13 Cortlandt street, New York city. The company has been forced to do this by the increased demand for their engines. Mr. Vincent, of the firm of C. R. Vincent & Co., who are the managers, is a resident of Erie, and has been engaged in the manufacture of engines for the past 20 years, and has been connected with the Ball Engine Co. during the latter part of his stay in Erie.

The Rome Foundry & Machine Works, Rome, Ga., write us, renewing their advertisement, saying that they have been greatly benefited by it, their business being better this spring than ever before, and is constantly increasing, having to run double time to supply orders. In the past 30 days they have booked 15 orders for the celebrated Davis double turbine water wheels, besides numerous orders for mill machinery, blast furnaces, etc., etc. The wheels they have sold this spring were for flouring and cotton mills principally.

THE Sterling Emery Wheel Co., No. 17 Dey street, New York, have just issued a large catalogue descriptive of their emery and corundum wheels, tool grinders, cylinders and chucks, countershafts, punch and die grinders, saw gummers, speed indicators, etc., etc. Their catalogue is handsomely illustrated and is replete with data as to the line of goods handled by them.

ONE of the correspondents of Garcin, Moseley & Bohmer, Richmond, Va., writes them as follows: "The large order of leather belting we bought of you is the finest and in every way the best we have ever had. The double 18-inch belt is all you guaranteed it to be; it works perfectly. I have personally used a great many kinds of belting, including Hoyt's, but yours is far superior to any I have ever used. I shall be pleased to give you our further orders.—Henry H. Horton, president Orange Park Lumber Co., Orange Park, Fla." Another writes: "The leather belting you furnished us is all working entirely satisfactory, and while we have many belts in the factory, Hoyt's and others, yours are equal to the best.—J. S. Ragdale, agent Oakdale Manufacturing Co., Jamestown, N. C."

This house offers special inducements to new cotton factories and saw mills, and it is certainly to the interest of this class of trade to correspond with them before contracting for leather or rubber belting. They carry in stock single belting from one inch to twelve inches, and double belts from three inches to twenty-four inches, and are therefore prepared to ship an order the very hour it is received. They report business very good, and that they are now at work on the leather belting that will be used in the extensive car works of the Elyton Land Co. They also hold the contract for the large cotton mills now being built by Messrs. F. B. McElwee & Co.

HAINES, JONES & CADBURY manufacturers of and dealers in plumbers' supplies, have recently built extensive additions to their large factory at Philadelphia. They have also fitted up two magnificent show-rooms, wherein everything that pertains to sanitary plumbing of a high order is illustrated. They have lately perfected a patent cistern for flushing washout closets, hoppers, etc. It is called the "Newell," and has a perfectly noiseless valve. This is, of course, a great success. They make a specialty of closet-seats, tank and tub casings, wash-stands, etc. They have now a complete wood-working department, filled with the latest improved machinery, devoted exclusively to this branch of their business. The immense trade they command all over the United States, Canada and in England enable them to manufacture very cheaply, and they can thus obtain the best results for the least possible money. The high grade of brass work they manufacture is annually bringing them new and permanent customers. They also deal largely in wrought iron pipe and fittings, cast iron soil pipe, copper tubs, etc. A new catalogue which they are about to issue will contain illustrations of their sanitary specialties, and they wish to distribute them to all plumbers and plumbing supply houses in the South. It will be handsomely gotten up and will be a valuable reference book to the trade. This firm manufactures every description of water closets and sanitary appliances, and have taken the highest awards of merit at several exhibitions. Parties contemplating building or remodeling their houses would do well by communicating with them.

WM. O. WEBBER, consulting engineer, Boston, Mass., reports the following professional work done: E. F. Coburn, president Sprague Bobbin Co., Lawrence, Mass., tests of power and bobbin lathes; W. D. Harts-horne, superintendent Arlington Mills, Lawrence, Mass., tests of power worsted spinning frames; A. H. Campbell, curator St. Paul's School, Concord, N. H., advice about purchasing and location of boilers and superintending the erection of same; Chas. P. Gardner, treasurer St. Paul's School, 2 Pemberton square, Boston, Henry Vaughn,

architect, 28 Pemberton square, Boston, designing heating apparatus and superintending erection of same for new chapel in Concord; Francis T. Elwell, Boston Tobacco Co., Boston, advice regarding and designing pumping plant for cranberry bog at Manomet, Plymouth county, Mass.; Arthur L. Kelly, treasurer Stedman & Fuller Manufacturing Co., Providence, R. I., designs and plans for new manufacturing plant; Wm. L. Haynes, treasurer Providence Cylinder Co., Providence, R. I., designing special grinding machinery, and advice regarding removal of plant and erection of same in new factory; W. E. Parker, agent Pacific Mills, Lawrence, Mass., opinion on machine tools; Henry W. Lamb, Lamb & Ritchie, Cambridgeport, Mass., advice in regard to and procuring report upon special boiler setting; C. E. Ashcroft, Mason Building, Boston, designs for petroleum burning furnaces for locomotive and stationary use; B. F. Horsford, Winona Paper Co., Holyoke, Mass., visit and advice in regard to pumping engines and water supply; Geo. W. Wheelwright Paper Co., Boston, Mass., interviews and advice regarding high speed engines and automatic regulation of water supply; Sayles & Nichols, Paskoag, R. I., advice in relation to new shafting in additional plant; Chas. P. Mitchell, Sewell & Day Cordage Co., Roxbury, Mass., power tests of machinery; A. A. Brooks, treasurer Boston Twist Drill Co., Boston, Mass., designing special machinery; Chas. E. Amory, treasurer Amory Manufacturing Co., Manchester, N. H., complete tests in detail of all the power used in the Amory and Langdon Nos. 1 and 2 Mills; W. H. Ellis, treasurer Sturtevant Mill Co., Mason Building, Boston, advice in relation to ore separators and power required to drive milling machinery; State Board of Health, Boston, Mass., duty figures in regard to centrifugal pumping engine for sewerage department; John T. Langford, contractor, Mason Building, Boston, advice regarding flowage and power available in a water privilege.

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When visiting New York city, save baggage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Central Depot. 600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern conveniences. Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city.

THE American House, Boston, needs no recommendation to the generality of travelers, but it may not be amiss to inform those who are contemplating their first visit to the "Hub" that no hotel in that city is better than the "American." It is conveniently located to all lines of travel as well as the business portion of the city, and no effort is spared to maintain the high rank the house has held so long.

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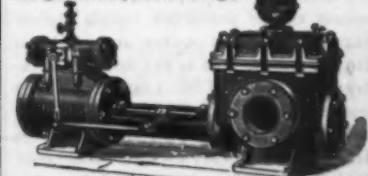
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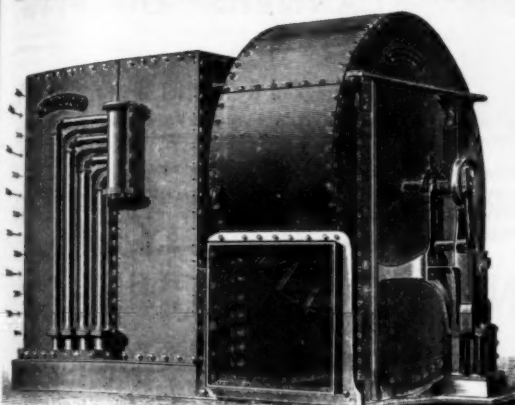
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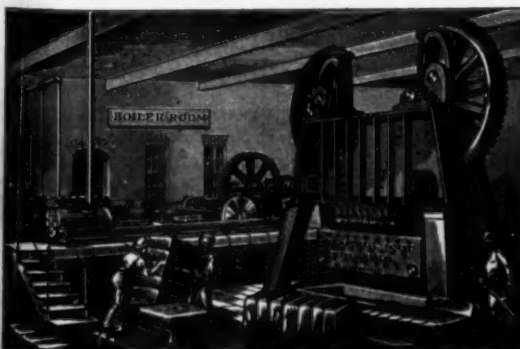
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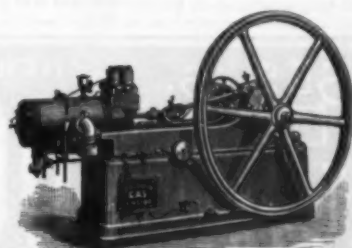
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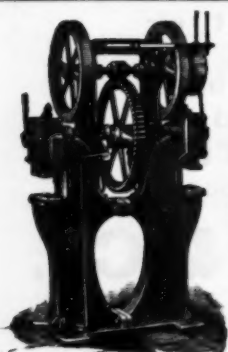
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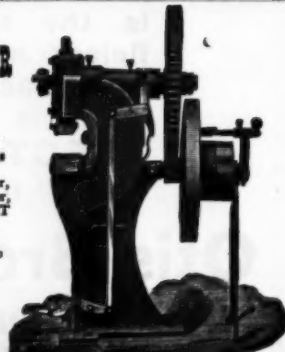


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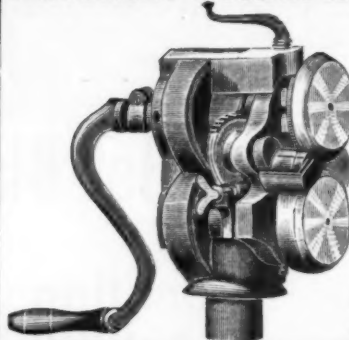
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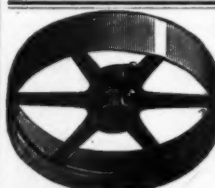
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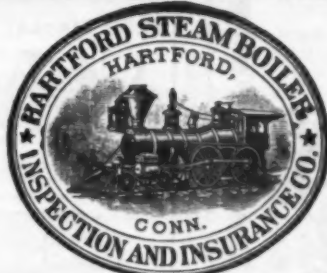
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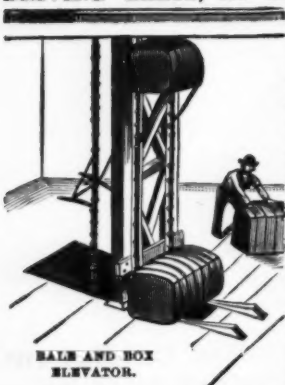
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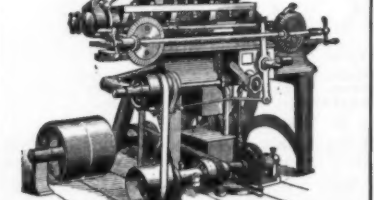
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1 Gallon
35
70
100



Fig. 134.
Double Jacket Steam Kettle.

SIZES:
2 1/2 Gallons
9
12
20
37



Fig. 136.
Iron Double-bottom Steam Kettle.

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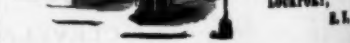
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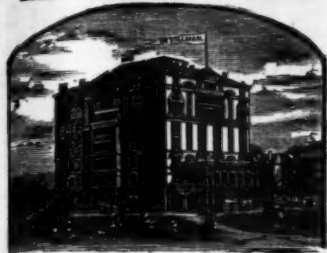
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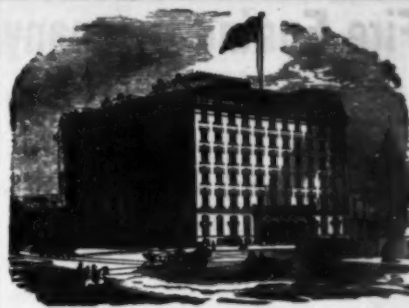
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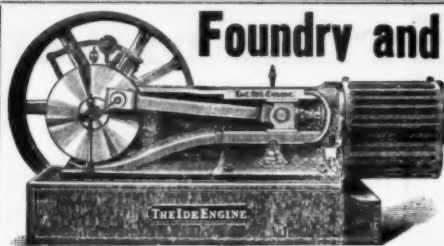


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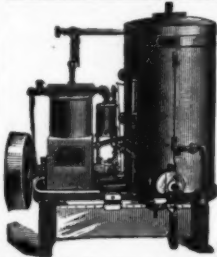


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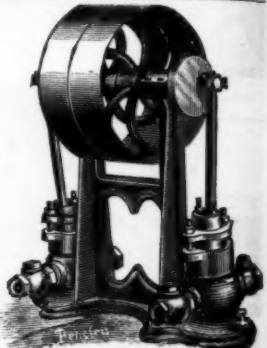
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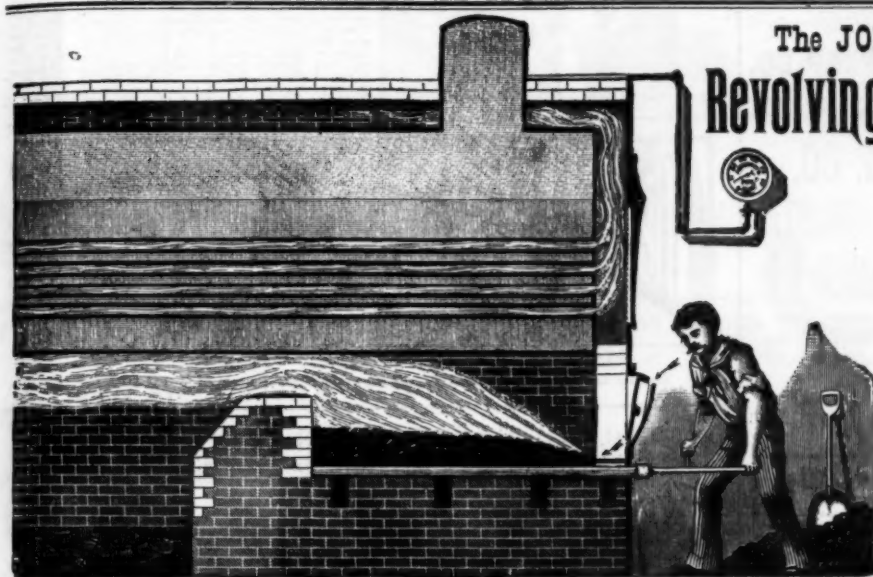
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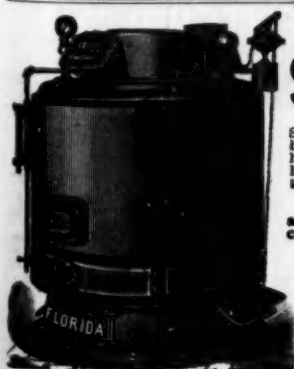
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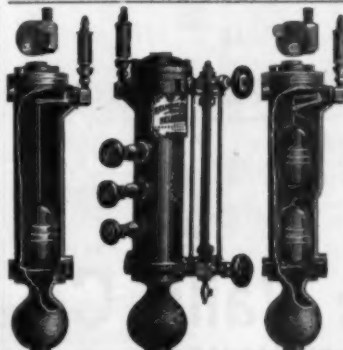
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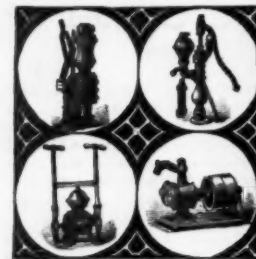
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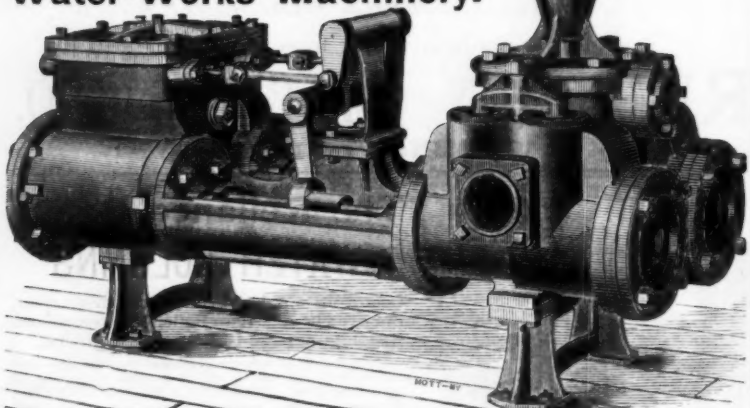
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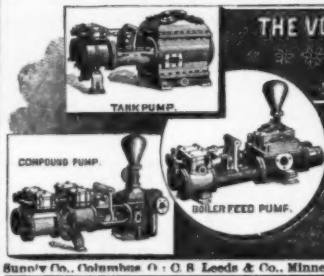
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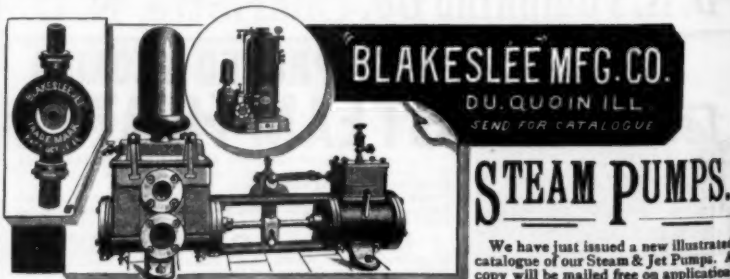
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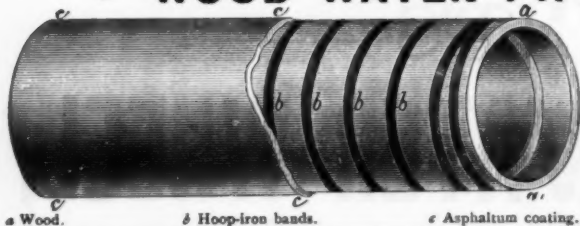
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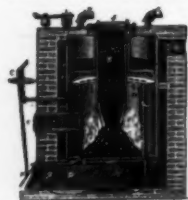
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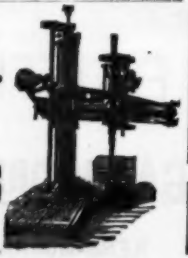
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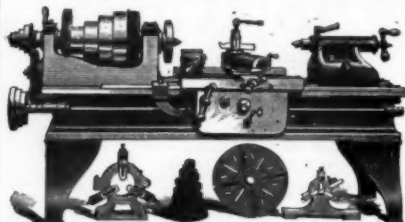
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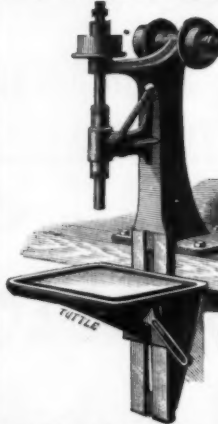


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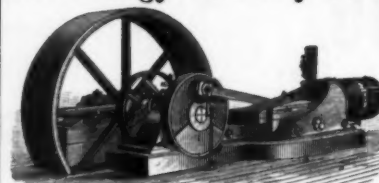
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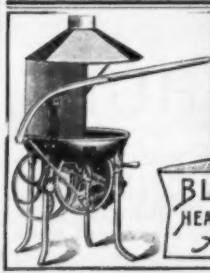
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